RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

JANUARY 5, 1953

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EXTRA DIVIDEND

$324.65

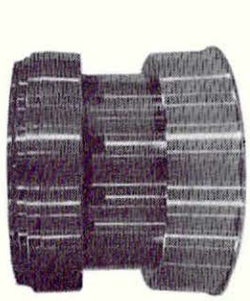
ADDITIONAL SAVING

n rebuilding traction motors for Electro-Motive customers

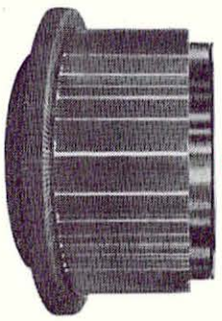
'9.22 Saving by salvaging all steel parts of the Commutator. (All other materials are NEW.)

45.43 Saving through newly developed process which also remanufactures copper in the upper main field coils. This is in addition to the $211.07 saved heretofore by salvaging copper in the interpole and lower main field coils.

24.65 TOTAL

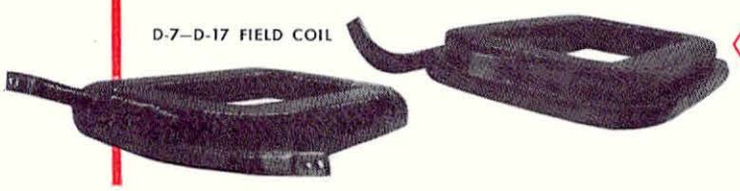


COMMUTATOR STEEL PARTS



D-27 COMMUTATOR
Built and seasoned *along with new Commutators* on the production line.

D-7—D-17 FIELD COIL



D-27 FIELD COIL
Copper re-formed with new turn-to-turn insulation *along with new coils* on the production line.

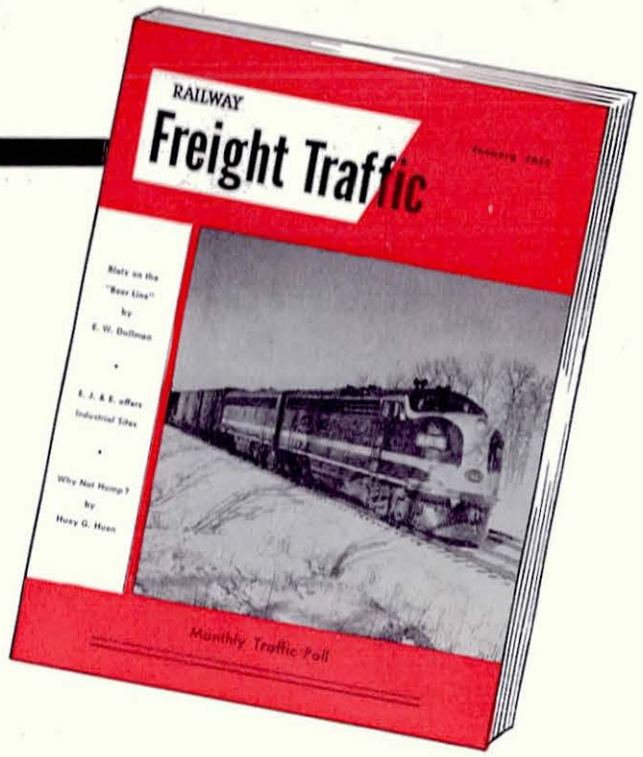
We suggest you take your pencil and figure what this means to your railroad, or call in our nearest representative for discussion.

GENERAL MOTORS LOCOMOTIVES

ELECTRO-MOTIVE DIVISION
GENERAL MOTORS

La Grange, Illinois • Home of the Diesel Locomotive

UNIT TRUCK



WE'RE COMING IN, TOO...

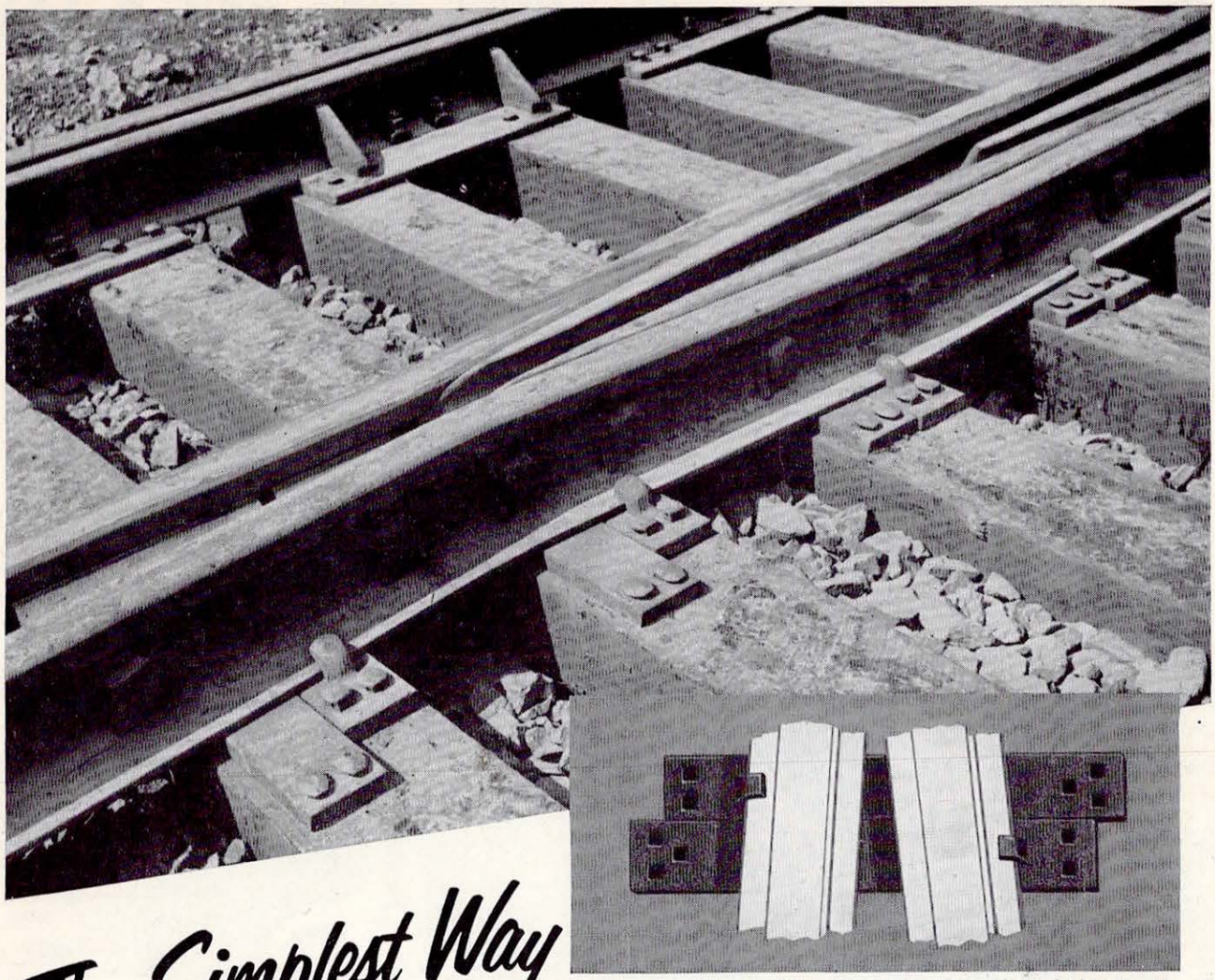
Both mechanical and operating men pretty well agree that Unit Truck is the outstanding freight car development of the last 50 years.

Now the traffic department is on the bandwagon, too, for freight moves faster on Unit Trucks. Fewer failures in service mean more on-time deliveries—the higher availability of Unit-equipped cars mean more cars where and when shippers want them.

So during the coming year you'll see our messages regularly in the new rail-freight publication—Railway Freight Traffic. We're glad to go along with the railroads in this new and vital sales job—to tell the world that rail transportation is the

SHIPPER'S BEST BET IN '53!

UNIT TRUCK CORPORATION • NEW YORK



Standard Twin Hook Frog Plates are stocked in 23-, 27-, and 31-in. lengths. Other sizes can be made to order.

The Simplest Way to assure a Tight, Rigid Frog

No track foreman purposely allows a frog to be loose or badly aligned. But it sometimes happens; and when it does, the hazard is great.

Our suggestion: eliminate the danger of the loose, jiggly frog by installing Bethlehem Twin Hook Frog Plates.

They anchor the frog securely, preventing lateral movement in either direction. The frog stays rigidly aligned with the rails. No rattle, no play, no loosening up. Here's why:

Twin Hook Frog Plates are always installed in pairs, each plate having its own integral forged hook. During installation the two plates are laid parallel, touching each other, with one hook on each side of the frog base. A tight, snug grip results.

Plates are fastened to the ties by ordinary spiking —a quick, simple job. And here's another point you'll like. Since the plates are used in pairs, you can employ the same length at several *different* tie positions under different angle frogs. No need for a large and confusing variety of lengths.

These simple, sturdy frog plates are low in cost, and there's virtually no maintenance. They're a safety device that belongs under every frog. Why not ask for details? Folder 390 will bring you the full story.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

BETHLEHEM STEEL

BETHLEHEM TWIN HOOK FROG PLATES

"Boy! He handles that thing just like a taxi!"

The Westinghouse Air Brake 6-SL Brake Equipment

THE day is gone when yard locomotive engineers spent more time controlling the locomotive than they did switching cars. Now, with the aid of Westinghouse 6-SL Brake Equipment, yard locomotives are controlled easily and accurately, and the engineer can devote his full attention to the switching operation.

The 6-SL Brake Equipment is built specifically for yard switchers. It provides a high degree of flexibility —matching that of the Diesel switcher itself. It performs along with the Diesel, 'round the clock, and thereby contributes to the high working availability of yard switchers.

The 6-SL Brake provides all the basic functions that enable a modern yard switcher to perform most productively and economically.

Westinghouse Air Brake Company

AIR BRAKE DIVISION

WILMERDING, PA.

Vol. 134, No. 1 January 5, 1953

RAILWAY AGE

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Railway Age Railway Mechanical & Electrical Engineer Railway Engineering & Maintenance
Railway Signaling & Communications Car Builders' Cyclopedia Locomotive Cyclopedia
Railway Engineering & Maintenance Cyclopedia American Builder
Marine Engineering & Shipping Review Marine Catalog & Directory
Books covering transportation and building

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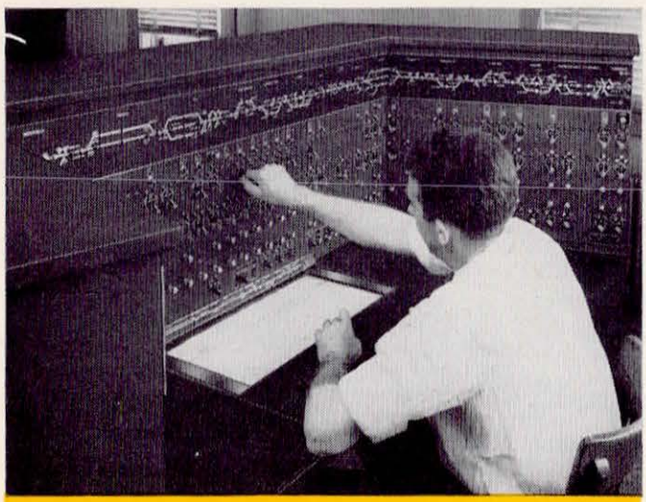
They removed a main track . . .
and its costs went with it!



CENTRALIZED TRAFFIC CONTROL provides maximum utilization of track, cars, and locomotives. Train movements are directed by wayside signals. All controlled from one location. C.T.C. can pay its way for you, too. Your inquiry will be most welcome. We'd like to help you cut operating expenses with C.T.C.

*Here's what happened!**

1. 67 miles of double track equipped with automatic block changed to single track with C.T.C.

2. Rail on double track in most of the territory was due for renewal in 1950.

3. Renewal of rail on *one track instead of two* for a distance of 62 miles . . . and the installation of C.T.C. . . . saved $1,500,000.00.

** Factual data will be supplied upon request.*

UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

SWISSVALE PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

Operating revenues, ten months	
1952	$8,738,353,866
1951	8,586,370,241
Operating expenses, ten months	
1952	$6,680,407,118
1951	6,700,217,593
Taxes, ten months	
1952	$1,052,093,753
1951	984,057,603
Net railway operating income, ten months	
1952	$ 853,008,994
1951	732,823,912
Net income, estimated, ten months	
1952	$ 594,000,000
1951	492,000,000
Average price railroad stocks	
December 29, 1952	69.32
January 2, 1952	54.39
Car loadings, revenue freight	
51 weeks, 1952	37,462,757
51 weeks, 1951	39,997,174
Average daily freight car surplus	
December 13, 1952	16,392
Decmeber 15, 1951	6,969
Average daily freight car shortage	
December 13, 1952	709
December 15, 1951	3,793
Freight cars delivered	
November 1952	5,929
November 1951	9,824
Freight cars on order	
December 1, 1952	87,657
December 1, 1951	129,158
Freight cars held for repairs	
December 1, 1952	96,085
December 1, 1951	88,911
Average number of railroad employees	
Mid-November 1952	1,238,688
Mid-November 1951	1,258,232

In This Issue . . .

COMING NEXT WEEK—*Railway Age*'s Review and Outlook number, giving the first comprehensive survey of railroad operations for the year of 1952, plus a forecast of prospects for 1953.

UNDER THE SCHEDULE followed for many months, this would have been a Freight Traffic Issue, its articles emphasizing to railroad men and to railroad customers what the railroads are doing and can do to provide better freight service. At least one of the feature articles herein—the page 48 description of the Southern Pacific's new $4.5-million yard at Roseville, Cal.—does fall within that category. But as is explained in the editorial on page 33, the concentrated emphasis on presentation to railroad customers of railroad traffic achievements has been shifted to a brand-new magazine, Railway Freight Traffic, *which makes its debut this month. As the editorial makes abundantly clear, traffic articles will continue to appear in* Railway Age, *but they will no longer be concentrated almost exclusively in the first issue of each month.*

ANOTHER ARTICLE in this issue which also has a strong traffic slant is that which begins on page 35; it is a round-up of the railroads' 1952 achievements in the direction of improving their ability to handle cars quickly and safely in and through yards and terminals. In that respect, 1952 was one of the biggest years in railroad history—and 1953 promises to be another 12 months of comparable achievement in the same direction. Just about every important railroad has yard improvement plans either projected or under way; they range all the way from jobs costing a few thousand dollars to the Pennsylvania's big $34-million modernization of Conway. Road-by-road details are included in the article in question.

THERE'S NO DISAGREEMENT on the seriousness of the hot box problem —but there's wide difference of opinion as to how best to overcome it; expressions on both sides of that highly controversial issue have appeared from time to time in the pages of Railway Age. *This week there's another one, this time from a "solid-bearing" man, James G. Dick, of the Canadian Bronze Company. See page 40.*

In Washington . . .

TRAFFIC PROSPECTS FOR 1953's FIRST QUARTER look pretty good, according to forecasts of car loadings by the 13 regional shippers' advisory boards. All necessary details of their combined forecasts are given on page 11. Briefly, however, the overall prediction is for a loadings rise of 1.7 per cent in the first three months of this

WEEK AT A GLANCE

year as compared with the corresponding period in 1952. Seven boards expect loadings to be up; six think they will be down. Increased traffic is predicted in 21 of 32 major commodity groups; decreases in 11.

"LOOK WITHIN" for a cure to some of the troubles of the railroad industry, says the year-end statement of the Federation for Railway Progress. More details of the F.R.P.'s prescription are included in the news columns.

THE INCOMING NATIONAL ADMINISTRATION may be as favorable as its predecessors to participation by this country in construction of the St. Lawrence Seaway and Power Project, according to newspaper stories beginning to come out of Washington. Treasury Secretary-Designate George Humphrey is tagged, in such stories, as the principal proponent of the scheme; before accepting his Cabinet appointment, Mr. Humphrey was long and closely identified with the industrial and financial interests which are backing the Labrador iron ore development. But some other new Cabinet members, and even President-Elect Eisenhower, also are said to be favorably inclined toward the "iceway." Belief apparently is that Administration support could probably pressure American participation in the project through the new Senate, but that it would encounter tougher sledding in the House. Of course, if Canada is wholly serious in its intention of going ahead by itself, what the U. S. does or doesn't do may be somewhat academic—but building international skating rinks is no way to cut taxes!

BUT ONE WAY in which taxes could be cut—and some efficiency injected into government—would be to eliminate some of the "40 major agencies" which Jack Garrett Scott, under secretary of commerce for transportation, says are now "performing transportation research functions," with "a woeful lack of coordination between them." Mr. Scott's remarks are reported in the news pages.

GUSTAV METZMAN, for many years president, and for the past five months board chairman, of the New York Central, became chairman of the American Railway Car Institute on January 1. Mr. Metzman's change in position was announced in Railway Age *December 22, while a brief outline of his railroad career appears in the news columns of this issue.*

. . . And Elsewhere

NEW JERSEY MUNICIPALITIES through which that state's profitable new turnpike runs want to share in the motor vehicle tolls collected for its use. Basis for their claim is that they are losing "millions of dollars in tax ratables" from construction of the superhighway. Another resolution adopted by the New Jersey State League of Municipalities at a recent meeting in Atlantic City called for a mileage tax on heavy trucks, with half the money therefrom to go to cities and towns for street improvement and expansion.

"RAILROADS ARE GOING TO HAVE TO SELL the shipping public on their desire to handle l.c.l. traffic," F. W. Monahan, traffic manager of the Dow Chemical Company's Madison division and chairman of the Trans-Missouri-Kansas Shippers' Board's L.C.L. Committee, told members of that board at its recent St. Louis meeting. "To do this," he said, the railroads "must bring forth a plan of action which will apply to all carriers collectively across the nation. The plan must be a bold one. It must contain imagination and express the desire to effect a real cure for the serious illness that now affects l.c.l. traffic." Adding that he "saw no future" in continuing "to do business in the same old way at the same old stand," Mr. Monahan suggested establishment within the Association of American Railroads of a section to handle l.c.l. matters.

NOW! 2 NEW HYSTER® LIFT TRUCKS

Extra-Rugged for "INSIDE and OUTSIDE" Work

Shorter, Narrower, Faster—with greater power and traction —and unmatched "Inside-Outside" versatility!

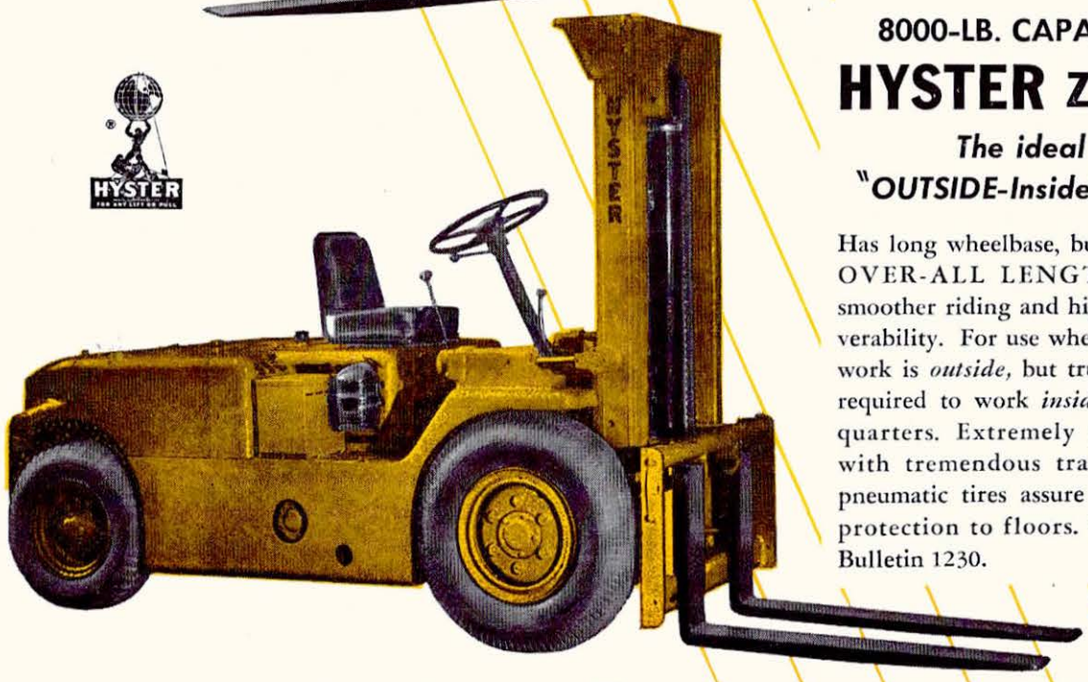
6000-lb. CAPACITY

HYSTER XA-60

The ideal "INSIDE-Outside" Truck

Shorter and narrower than any other 6000-lb. lift truck, embodies the *most* truck in the *least* space. A great "inside" truck — equally efficient outside for all-purpose operation. Pneumatic tires are easy on floors inside, give greater traction outside. The XA-60 will permit many plants to operate *one* truck in place of *two*. Write for Bulletin 1231.

On display at your Hyster dealer



8000-LB. CAPACITY

HYSTER ZA-80

The ideal "OUTSIDE-Inside" Truck

Has long wheelbase, but SHORT OVER-ALL LENGTH — for smoother riding and high maneuverability. For use where most of work is *outside,* but truck is *also* required to work *inside* in close quarters. Extremely powerful, with tremendous traction, yet pneumatic tires assure maximum protection to floors. Write for Bulletin 1230.

HYSTER COMPANY

THREE FACTORIES

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1832 North Adams..... Peoria 1, Illinois
1032 Myers Street..... Danville, Illinois

Be sure to get the whole Hyster "Inside-Outside" story before you buy *any* Lift Truck! Ask your Hyster Dealer, or write for Bulletins 1230 and 1231.

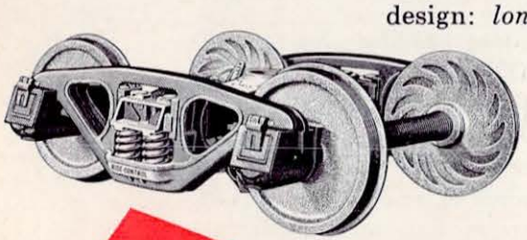
The truck that gave the HIGHBALL to *modern freight movement!*

A revolution in freight handling started in 1944. Practically overnight, freight cars were built that rode safely and smoothly, at practically any speed, empty or fully loaded. *Cars that gave greater protection to lading and carried it to destination faster.*

It seems hard to believe now that all these advantages were gained so quickly by just one new concept of railroad truck design: *long spring travel with constant friction control.* And yet that concept—developed by ASF and introduced in the ASF Ride-Control Truck—gave the "Highball" to *modern* freight movement!

The strongest testimonials to the performance of ASF Ride-Control Trucks come from the railroads themselves. Today, over 300,000 car sets of these trucks have been ordered—and *re-ordered*—by 174 railroads and car owners. More are specified than all other trucks combined!

More users buy more ASF Ride-Control trucks than all other trucks combined!



For high speeds, smooth riding, low maintenance . . . Specify ASF Ride-Control Trucks when you order new cars. Let a qualified ASF Representative show you how this modern truck can reduce your costs per car mile. Write us today.

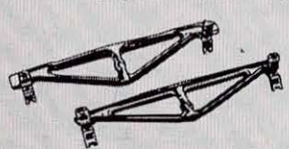
ASF

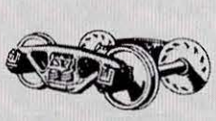
American Steel Foundries

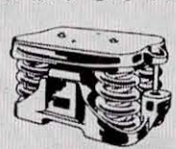
410 North Michigan Ave., Chicago 11, Ill.

Canadian Sales: International Equipment Co., Ltd., Montreal, Quebec

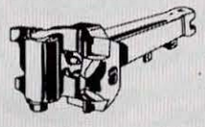
Look for this MINT ◯ MARK on the running gear you specify

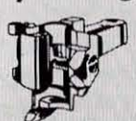

Cast Steel Brake Beams

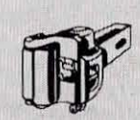

Ride-Control Trucks

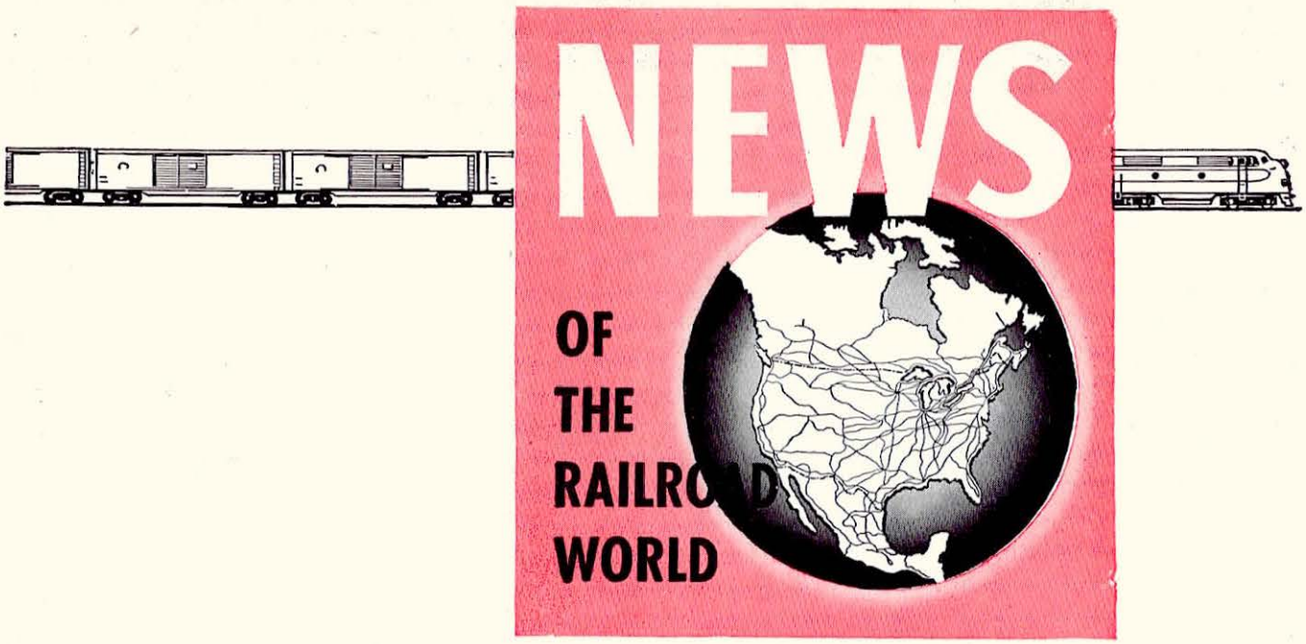

Ride-Control Packages

Simplex Snubbers


Type E Couplers


Type F Couplers


Tightlock Couplers



First Quarter Loadings Seen 1.7 Per Cent Higher

Freight car loadings in the first quarter of 1953 are expected to be 1.7 per cent above those in the same period of 1952, according to estimates of the 13 regional Shippers Advisory Boards.

On the basis of those estimates, loadings of the 32 principal commodity groups will be 7,271,307 cars in the first quarter of 1953, compared with 7,148,322 actual loadings for the same commodities in the corresponding period of last year. Seven boards estimated an increase and six a decrease in loadings for 1953's first quarter compared with the like 1952 period.

The accompanying tabulation shows actual loadings for each district in the first quarter of 1952, estimated car loadings for the first quarter of 1953, and percentage of change.

The boards expect an increase in the loading of 21 of the commodities listed and a decrease in 11. Commodities for which increases are estimated, and the amount of increase, include: Frozen foods, fruits and vegetables, 19.1 per cent; automobile trucks, 18 per cent; vehicle parts, 26.9 per cent; potatoes, 13.8 per cent; ores and concentrates, 8.4 per cent; citrus fruits, 7.1 per cent; other fresh fruits, 6.2 per cent; lime and plaster, 5.2 per cent; chemicals and explosives, 3.7 per cent, and fresh vegetables other than potatoes, 3.5 per cent.

Commodities for which decreases are estimated include: Hay, straw and alfalfa, 7.4 per cent; cotton, 6.4 per cent; cottonseed, soybean-vegetable cake and meal, excluding oil, 3.8 per cent; sugar, syrup and molasses, 3.1 per cent; all grain, 2.6 per cent, and poultry and dairy products, 0.8 per cent.

Shippers Advisory Boards	Actual Loadings First Quarter 1952	Estimated Loadings First Quarter 1953	Percent Increase
New England	141,549	139,368	1.5 dec.
Atlantic States	756,251	781,339	3.3
Allegheny	984,405	960,148	2.5 dec.
Ohio Valley	1,000,827	1,020,136	1.9
Southeast	1,041,344	1,067,745	2.5
Great Lakes	452,906	498,142	10.0
Central Western	274,095	286,671	4.6
Mid-West	815,150	835,601	2.5
Northwest	258,375	250,035	3.2 dec.
Trans-Missouri-Kansas	345,1 4	345,090	0.01 dec.
Southwest	531,582	529,076	0.5 dec.
Pacific Coast	324,847	346,000	6.5
Pacific Northwest	221,877	211,956	4.5 dec.
TOTAL	7,148,322	7,271,307	1.7

"Improvement" Wage Case Enters "How Much?" Phase

Referee Paul N. Guthrie advised railroad labor and management representatives on December 29 that his report on labor's demand for an "improvement-factor" wage increase would hold in effect that the government's "stabilization" policy permits consideration of the demand, and that present wage agreements are reopenable for that purpose. Thus, Mr. Guthrie also advised that he would open proceedings on the matter at the Commodore Hotel in New York on the afternoon of January 5.

The parties had agreed on this procedure and that Mr. Guthrie's decision shall be final and binding. Mr. Guthrie got the referee assignment by appointment by President Truman (*Railway Age*, December 22, 1952, page 50).

C. A. A. Chief Calls 1952 Aviation's "Biggest" Year

Civil aviation neared the end of 1952 with the year "promising to be the industry's biggest and safest in history," Charles F. Horne, Civil Aeronautics Administrator, said in a December 27 statement.

More than 27 million passengers were carried more than 15.4 billion passenger miles by domestic and international scheduled air lines, Mr. Horne said. Domestic air line traffic was up 9 per cent, and international traffic was

up 17 per cent. Meanwhile, the number of aircraft accidents resulting in passenger fatalities dropped from 10 to 5, Mr. Horne said.

The passenger fatality rate per 100 million passenger-miles went down from 1.3 in 1951 to an estimated 0.4 in 1952 for domestic air lines, Mr. Horne continued.

Commenting on C.A.A. activities during 1952, Mr. Horne spoke of the "outstanding advance" made in the field of air navigation aids. At mid-year, 45,000 miles of very high frequency airways, known as "Victor" airways, were opened for domestic use.

Under the Federal Aid Airport Program, C.A.A. in 1952 entered into grant agreements with communities for work at 82 locations, involving $20,706,000 in federal funds. Projects were physically completed during the year at 120 locations with the help of $36,561,000 in federal funds.

Airport activity during the year brought the total for the Federal Air Airport Program to 1,945 projects physically completed at 1,070 airports, with $133,216,000 in federal aid funds, Mr. Horne reported.

Other C.A.A. activities during 1952 included a series of approximately 170 pilot safety forums, where airmen discussed means of preventing accidents in personal flying. A team of C.A.A. specialists was appointed during the year to "study all phases of the problem and evaluate the fundamental features of jet transport designs." Helicopters came into more general use with mail service at Los Angeles, Cal., and New York.

Scott Deplores Lack of Coordination In Government Transport Activities

Investigations made by the Department of Commerce's Office of Transportation have pointed up a "woeful lack of coordination" in the transportation activities of various agencies of the federal government. This was reported by Jack Garrett Scott, under secretary of commerce for transportation, in a December 28 address before the American Economic Society at Chicago.

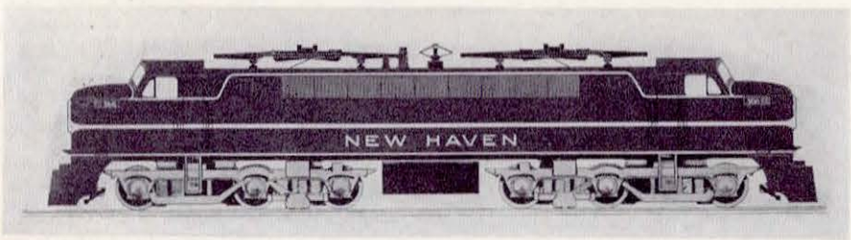
The investigation Mr. Scott had particularly in mind disclosed that there are "some 40 major agencies" of the federal government which are "performing transportation research functions of one kind or another." In these agencies, he added, "there are 164 separate subordinate bureaus or divisions so engaged." And the totals do not include the Department of Defense, which Mr. Scott was "sure" would "add materially to the volume and possibly the confusion."

As another example of lack of coordination, Mr. Scott referred to the "wide divergence in regulatory policies" of the Interstate Commerce Commission, Civil Aeronautics Board, and Maritime Board. "There exists," he added, "no instrumentality within all of the government, under present circumstances, which can unify or correlate the decisions of these independent regulatory agencies upon the broad ground of what is best for *all* transportation."

Mr. Scott also advocated more coordination of the government's "promotional activities" in the transport field; and between the promotional and regulatory activities. In the latter connection he suggested, by way of example, that something like a showing of public convenience and necessity be required before appropriations are approved for waterway projects.

Mr. Scott denied again that the Department of Commerce seeks any regulatory functions in the transport field. He does favor, however, the centralization in that department of the government's other transport activities.

In closing, Mr. Scott outlined the study program which his office has undertaken. (*Railway Age*, October 13, 1952, page 12.) Among the "primary hypotheses" upon which the office has proceeded is this: "That the concept of the need for coordination of transportation policy in the executive branch will meet with acceptance by the incoming administration."



New Haven Passenger Service to Be Improved With 10 Rectifier Type Locomotives

The 10 all-electric locomotives ordered by the New York, New Haven & Hartford from the Locomotive and Car Equipment Department of the General Electric Company, announced in the August 25, 1952, issue of *Railway Age*, will be a rectifier type of motive power.

They will be used by the railroad between Grand Central Terminal and Pennsylvania Station in New York City and New Haven, Conn.

Electric equipment on these locomotives converts alternating current from the overhead wire into direct current for driving traction motors on the locomotives' axles. Rectifier tubes are the heart of this conversion system. The tubes will measure eight inches in diameter and will weight 100 lb. each. In combination with a power transformer, the tubes will take 11,000 volts alternating current from the overhead and change it into a low-voltage direct current.

With a continuous rating of 4,000 hp. at the rails, the locomotives will be capable of operating up to 90 m.p.h. with a train of cars. Equipped with a streamlined cab and fitted for double-end operation, the new locomotives will weigh 174 tons and measure 68 ft. in length. Two oil-burning boilers will furnish steam for train heating. They will be driven by six traction motors, one on each axle of the two three-axle trucks.

Intrastate Rate Cases

The Interstate Commerce Commission has found that unjust discrimination against interstate commerce results from the refusal of the Public Service Commission of Utah to authorize intrastate freight-rate increases in line with the interstate advances approved in Ex Parte 162, 166 and 168.

The commission's decision, in No. 30961, said that an order requiring that the intrastate rates be raised would be issued unless the Utah commission advised that it would approve such an adjustment. The I.C.C. report was accompanied by a dissenting opinion from Commissioner Splawn and a "concurring-in-part" expression from Commissioner Knudson.

In another recent decision, the commission found that no unjust discrimination against interstate commerce results from the refusal of the State Corporation Commission of Virginia to approve several of the "ex parte" increases for intrastate application on fine coal. That report, in No. 30785, was accompanied by a dissenting expression from Commissioner Mitchell

with whom Commissioner Johnson agreed.

Meanwhile, the commission has instituted investigations of intrastate rates in Louisiana and Mississippi. Those proceedings are docketed, respectively, as Nos. 31163 and 31164.

In No. 30720, which involves Tennessee intrastate rates, the commission has postponed indefinitely the effective date of its order requiring increases on coal and wood, acid, chemical or fuel, and pulpwood. The postponement was in response to an order issued by the federal district court at Nashville, Tenn., where Tennessee's appeal from the I.C.C. order is pending.

F. R. P. Says Industry Can Find and Cure Own Ills

The Federation for Railway Progress, of which Robert R. Young is chairman, called upon the railroad industry in a year-end statement to "look within itself for the source and perhaps the cure of some of its troubles," rather than place most of its hopes for a sound economic future upon relaxation of government regulations.

"If railroading is a religion, to be bound by dogma set forth by some consistory seated in the Transportation Building in Washington, or Grand Central station in New York, or Broad Street station in Philadelphia, or in Chicago, we are in for a bad time," the F.R.P. said. "The railroads were not divinely established. They are not bound to be with us until Judgment Day. Indeed, they will be with us only so long as they serve their purpose, and that may be a hundred or two hundred years, or only fifty. How well they exist, even if they exist at all, will depend upon how well they continue to perform their function, and improve the way in which they perform that function."

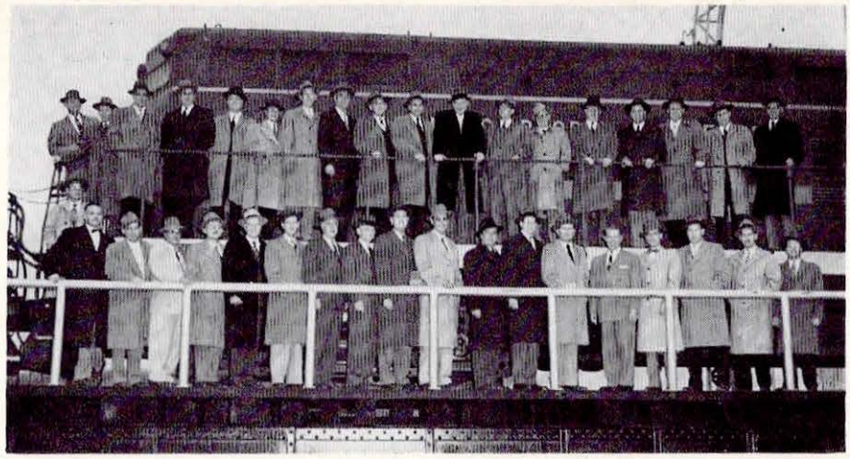
Speaking of the railroad industry's campaign for deregulation, the Federation said:

"In addition to telling its story of over-regulation, and telling it honestly and competently, the railroad industry will make even greater strides towards its future happiness and prosperity only as it looks within itself for the source and perhaps the cure of some of its troubles—and only if it refuses to succumb to the regimentation of the mind that is a constant danger in any highly organized industry. . ."

The Federation's statement noted that membership in F.R.P. is "open to anyone whose interest or welfare is tied into the railroad business: Traveler, shipper, employee, investor, supplier or manager." It said the "railroad family is much wider than the confines of any executive office or set of executive offices."

"If we argue in public, it is because we are small and we have vast respect for the intelligence of the people and the power of public opinion. We believe that the public is a party to any argument involving the future of the railroad industry," the Federation said.

"If we seem impatient for progress and improvement, it is because there is a real urgency about solving the problems of freedom and better service in the railroad industry. The too-patient can fall asleep, or, through inertia which passes for patience in some quarters, make such little progress that they may find themselves and their industry suddenly the wards of government," it added.



PHYSICAL EXAMINATIONS were the first order of business at a three-day meeting of Toledo, Peoria & Western traffic representatives in Peoria, Ill., December 8-10. The examinations were arranged through the Medical & Surgical Clinic in Peoria. Following this, the traffic men visited various points on the system, traveling aboard local freight trains. While getting acquainted with the general headquarters in Peoria, they learned of other phases of railroad operation from TP&W department heads.

Intercity Trucks Performed 140 Billion Ton-Miles in '52

All private and for-hire truckers performed about 140 billion ton-miles of intercity service in 1952, according to the year-end statement of Walter F. Carey, president of American Trucking Associations.

This was an increase of nearly seven billion ton-miles above the 1951 performance of 133.2 billion ton-miles. Tons of freight transported, however, were expected to about equal the 1951 tonnage, Mr. Carey said.

In his estimate of the size of the trucking industry as 1952 closed, Mr. Carey included all trucking. On that basis, he found that the "industry" employed 6,009,000 persons, making it the country's "second largest employer, topped only by agriculture." The 1952 payroll was put at more than $21 billion, up a billion from 1951.

As to for-hire truckers reporting to the Interstate Commerce Commission, Mr. Carey said their 1952 net revenues would be about seven per cent below the 1951 net, despite a six per cent increase in gross. "A substantial increase in operating expenses spelled the difference," he said.

NEW MONON PRESIDENT NAMED

At a meeting of the board of directors of the Chicago, Indianapolis & Louisville on December 29, 1952, Warren W. Brown was elected president, effective January 1, to succeed John W. Barriger, who recently was elected vice-president of the New York, New Haven & Hartford. Mr. Brown has been vice-president—traffic of the Monon.

2nd Quarter Allotments; Roads Would End Controls

Allotments of materials for construction of 9,000 freight cars per month during the second quarter of 1953 have been made by the Defense Production Administration.

The whole second-quarter allotment for railroad equipment is 1,951,961 tons of steel, 77,822,000 lb. of copper and 5,858,000 lb. of aluminum. The 9,000-car monthly rate of new-car production will be the highest ever achieved under the Controlled Materials Plan the D.P.A. announcement said. It added that it is "expected to be all that can be built under existing conditions in the second quarter."

Meanwhile, the National Production Authority has received from its Railroad Industry Advisory Committee a recommendation that all C.M.P. controls on non-defense production be discontinued next June 30 when the Defense Production Act is scheduled to expire. A like recommendation came from N.P.A.'s Locomotive Builders Industry Advisory Committee, which said the controls should be ended before June 30 "if possible."

The recommendations were made at

recent meetings of the committees in Washington. It was the view of the railroad committee that the industry would be better off without controls. However, there was some discussion at the meeting of proposals to make some voluntary arrangement with the steel industry, like that in effect between 1946 and 1951.

"Insufficiency of rail was called the industry's most acute problem," according to N.P.A.'s report of the meeting.

At the meeting of the locomotive industry committee, it was stated that allotments for next year's second quarter should give builders materials for 883 units. Eight hundred of these would be for the U.S. railroads, and the balance for industrial use, the military and for export.

N.P.A.'s Freight Car Component Parts Industry Advisory Committee also held a recent meeting at which committee members recommended what the N.P.A. report called "orderly abandonment" of controls—except as to materials for the armed services and defense-supporting programs. Meanwhile, this committee would have the railroad industry enter voluntary supply arrangements with the steel industry.

N.P.A. officials attending this meeting were reported to have said that steps were being taken "to encourage a flood of new orders." They estimated that "orders for about 240,000 new freight cars will materialize in the next 24 months."

Railroads Extend Reduced Furlough Fare Agreement

Reduced furlough fares for military personnel traveling in uniform at their own expense have been extended from January 31, 1953, to July 31, 1953, Earl B. Padrick, chairman of the Interterritorial Military Committee announced last week. Mr. Padrick's committee represents all railroads in the East, South and West.

This extension will continue tax-exempt round-trip fares for military personnel on furlough at the rate of 2.025 cents per mile or less, good in coaches, which means a saving of up to one cent per mile and includes regular stopover and baggage privileges, Mr. Padrick stated.

Kendall Is New Director Of D. T. A. Railroad Division

Leon B. Kendall has been appointed director of the Railroad Transport Division, Defense Transport Administration, effective January 5, 1953. He succeeds David Smucker, who headed the division until November 7 (*Railway Age*, November 24, page 17).

Mr. Kendall comes to D.T.A. from the Chicago & North Western where he is assistant vice-president (operation).

Newsprint Transportation Is Subject of New Study

A study of transportation factors which enter into the marketing of newsprint has been made by the Office of the Under Secretary of Commerce for Transportation.

A statement by the Department of Commerce called the study "basic" to many industries "since it demonstrates the importance of properly evaluating transportation factors." The study also illustrates the value of traffic and rate data for marketing and transportation studies, the department said.

Entitled "Transportation Factors in the Marketing of Newsprint," the 126-page study was prepared by Edward Margolin and William P. McLendon of the Carrier Division, Office of Transportation.

Commerce Progressing "User-Charge" Study

The Department of Commerce's study of charges made for federally provided transportation facilities is continuing, its purpose being "to develop an overall policy for imposition of user charges."

This was noted by Secretary of Commerce Sawyer in that section of his annual report which dealt with activities of the office of the undersecretary for transportation. Such activities also included a study of the transportation of petroleum and petroleum products.

The report on the latter "is a pilot analysis in evaluation of the relative efficiency and economy of various types of carriers in transportation of bulk commodities," the secretary said. He added that it was undertaken "in view of present-day concern about efficiency and economy of carrier operations and the intense rate competition between different agencies of transport."

Other sections of the report were devoted to activities of the Civil Aeronautics Administration, Bureau of Public Roads, and Inland Waterways Corporation. As to the latter, which operates the Federal Barge Lines, the secretary reported that its deficit for the fiscal year ended June 30, 1952, was $325,000.

Inaugural Crowds To Use 600 Extra Pullman Cars

An estimated 600 extra Pullman cars and hundreds of extra coaches will be required to handle rail travel to the inauguration in Washington, D.C., on January 20.

Joseph C. McGarraghy, chairman of the Inaugural Committee, announced the rail requirements following a December 16 meeting of the railroad committee working on inaugural plans. President William T. Faricy, Association of American Railroads, is chairman of the railroad committee.

Representatives of railroads serving Washington said space has already been committed for about 480 sleeping cars for one or more nights, Mr. McGarraghy reported. The sleeping cars, arranged primarily for organized groups coming to the inauguration, will be parked in rail yards in the the city area and arrangements will be made for light, water, heat and sanitation.

In addition to the contemplated movement of sleeping cars, railroad officers also predicted substantially increased passenger movements in coaches in extra trains and in special sections of regularly scheduled trains, Mr. McGarraghy said.

METZMAN HEADS RAILWAY CAR INSTITUTE

Gustav Metzman, whose election as chairman of the American Railway Car Institute was reported on page 16 of the December 22, 1952, *Railway Age*, began his railroad career in 1903 as a copy clerk in the car service department of the Baltimore & Ohio at Baltimore. Thirteen years later Mr. Metzman left the B&O to join the Eastern Railroad Presidents Conference as a transportation supervisor. For two years—1918 and 1919—he served with the United States Railroad Administration in New York.

On March 16, 1920, Mr. Metzman entered the employ of the New York Central, with which he was associated until his retirement as chairman of the board on January 1. The only interruption in his service with the NYC was a five-month leave-of-absence in 1942 when he was chief of the Railroad Division, Transportation Corps, U. S. Army, Washington, D. C.

Mr. Metzman was elected president of the Central on September 1, 1944. He was succeeded in that office—and simultaneously elected chairman of the board—by William White, former president of the Delaware, Lackawanna & Western (*Railway Age*, July 7, 1952, page 17), last August.

The American Railway Car Institute, a trade association whose membership includes the major U. S. builders of railroad freight and passenger cars, came into being on September 1, 1925, as successor to the Railway Car Manufacturers' Association. First president of the institute was J. M. Hansen, chairman of the board of the former Standard Steel Car Company, a predecessor of the present Pullman-Standard Car Manufacturing Company. Its present officers are C. W. Wright, president; W. J. Curley and C. J. Hardy, Jr., vice-presidents; and W. C. Tabbert, secretary and treasurer.

ORGANIZATIONS

"The Future of the Southwest and its Railroads" is the subject of a talk to be presented by E. C. Rechtin, general manager of the Bethlehem Steel Company's Gulf Coast division, before the 92nd regular meeting of the **Southwest Shippers Advisory Board** in Beaumont, Tex. Another highlight of the three-day meeting, which begins on January 20, will be a panel discussion on rail transportation moderated by J. Maurice Taylor, traffic manager of the Beaumont Chamber of Commerce. Mr. Rechtin will speak at the joint luncheon session to be held in connection with the **Sabine District Traffic Club.** A bus tour of the industrial section and waterfront will be sponsored by the traffic club following the luncheon.

The **Traffic Club of St. Louis** will hold its 45th annual dinner at 7 p.m. on January 13 in the Hotel Jefferson. Guest speaker will be Gene Flack, sales counsel and director of advertising of Sunshine Biscuits, Inc.

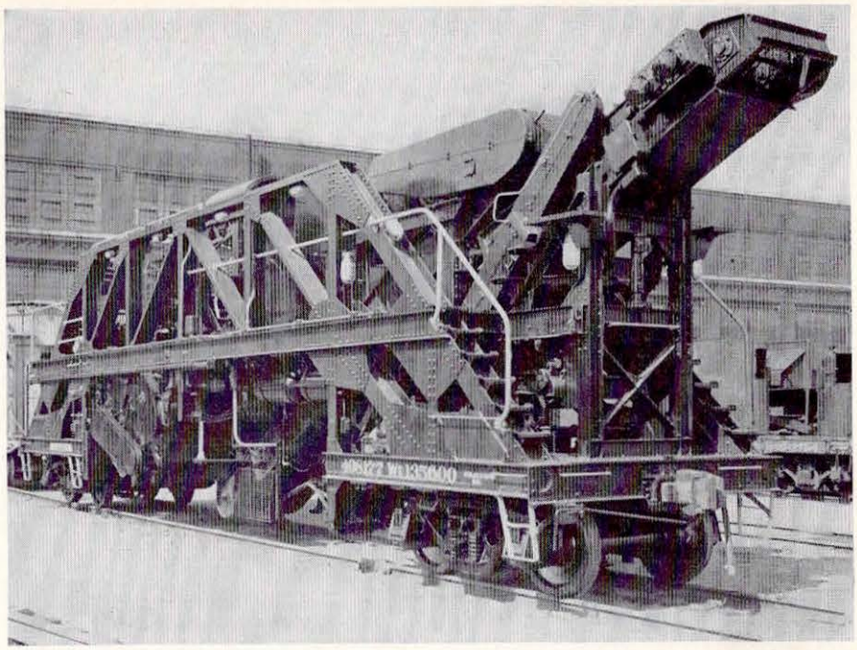
Lloyd E. Siberell, agent for the Norfolk & Western at Columbus, Ohio, has been appointed president of the **Columbus Transportation Club** to serve the unexpired term of Clarence H. Dick, freight representative of the Baltimore & Ohio, who was recently promoted to B&O district freight representative at Kansas City. Rhys E. Wolcott, freight representative of the Pennsylvania, was appointed to the seat on the club's board of governors vacated by Mr. Siberell's advancement.

The 24th annual exhibition of the **New York Society of Model Engineers** will be held in the Lackawanna Terminal, Hoboken, N.J., February 11-23. Weekday hours are 5:30 p.m. to 10 p.m.; Saturdays, Sundays and holidays, 1 p.m. to 10 p.m. Model builders have been invited to submit their models for display. In addition to a "Certificate of Merit," builders of prize-winning models will receive cash awards.

The following officers were elected for 1953 at a recent meeting of the **Appalachian Traffic Club:** President, Fleetwood Gruver, terminal manager, Silver Fleet Motor Express, Inc., Kingsport Tenn.; vice-presidents, J. B. Gillis, traffic manager, Tennessee Eastman Company, Kingsport, K. P. McDonald, general agent, Atlantic Coast Line, Kingsport, and E. H. Flounlacker, manager, Grossett & Dunlap, Inc., Kingsport; and secretary-treasurer, G. A. Dansberry, district freight and passenger agent, Southern, Kingsport.

The 29th annual meeting of the **Atlantic States Shippers Advisory Board** will be be held in the Lord Baltimore Hotel, Baltimore, Md., on January 14 and 15. A special luncheon, sponsored by the board and the **Traffic Club of Baltimore,** will be held on January 15 at 12:30 p.m. "Management Development" will be the subject of an address by Ernie Issel, assistant secretary-treasurer of McCormick & Co., Baltimore. Howard E. Simpson, executive vice-president of the Baltimor & Ohio, will serve as toastmaster.

The **Transportation Club of Seattle** has elected Kenneth H. Gill, district sales manager of Consolidated Freightways, as president. He succeeds R. D. Bone, and will be installed in his new office at the club's annual dinner on January 17, along with the following other officers: First vice-president, Don D. Heydlauff, vice-president, Smyth Van & Storage, Inc.; second vice-president, Marshall O. Culton, general agent, Chicago, Indianapolis & Louisville; treasurer, R. D. Stolts, auditor, American Mail Lines, Ltd.; and secretary, H. J. Dobb.



THIS PENNSYLVANIA TRACK SWEEPER is operated with a separate power car and a series of hopper cars equipped with dirt conveyors.

EQUIPMENT AND SUPPLIES

D&RGW Announces Betterment Plans

The Denver & Rio Grande Western has announced plans to spend about $20,000,000 for improvements and new equipment during 1953. New equipment will include five 6-traction-motor general purpose diesel units costing over $1,000,000; and 1,700 70-ton drop-bottom gondola cars and 50 covered hopper cars costing almost $12,000,000. Another $2,000,000 will be spent for new 115-lb. main-line rail.

The new diesels will be used on branch lines, releasing presently used general purpose diesels for yard service to replace old steam power. Some of the road's older diesels will be modernized and 500 of its box cars will undergo major rebuilding.

First step in a long-range plan to expand the Ogden, Utah, yard, will be expenditure of $88,000 for additional trackage to improve interchange facilities with the Southern Pacific. The new classification yard at Grand Junction, Colo.—a $4,000,000 project, with $2,000,000 remaining to be spent—will be completed this year.

Included in the program are the following improvements, with approximate costs indicated: Terminal and other large projects ($2,000,000); new shop machinery and tools ($225,000); additional yard tracks ($200,000); new work equipment ($185,000); construction of new line extensions ($182,757); bridges, trestles and culverts ($168,000); communications systems ($134,000); signals and interlocking plants ($104,000); new fuel stations ($63,814); freight station improvements ($62,000); roadway maintenance and tools ($40,000); and tunnel improvements ($30,000).

Domestic Equipment Orders Reported in December

Domestic orders for 58 diesel units and 15 gas turbine electric locomotives, 700 freight cars and 24 passenger-train cars were reported by individual

DOMESTIC EQUIPMENT ORDERS REPORTED IN DECEMBER

LOCOMOTIVES

Purchaser	No.	Type	Issue Reported	Builder
IT	4	1,500-hp.	Dec. 22	Electro-Motive
UP	15	Gas turbine electric	Dec. 15	General Electric
	8	2,250-hp. "A" Pass.	Dec. 15	Electro-Motive
	14	2,250-hp. "B" Pass.	Dec. 15	Electro-Motive
	10	1,500-hp. Rd.-Sw.	Dec. 15	Electro-Motive
	22	1,200-hp. Switching	Dec. 15	Electro-Motive

FREIGHT CARS

Chicago Heights Terminal Transfer	25	50-ton Box	Dec. 15	Amer. Car & Fdy.
GM&O	100	50-ton Pulpwood	Dec. 15	R.R. Shops
L&NE	100	70-ton Cov. Hopper	Dec. 1	Pullman-Standard
M-I	100	70-ton Hopper	Dec. 22	R.R. Shops
NYNH&H	100	Flat	Dec. 15	R.R. Shops
Reading	100	50-ton Cement Hopper*	Dec. 15	Bethlehem Steel
StL-SF	100	70-ton Gondola	Dec. 22	R.R. Shops
StLSw	75	50-ton Pulpwood	Dec. 15	Bethlehem Steel

*Erroneously designated "pulpwood" cars in issue of December 15.

PASSENGER-TRAIN CARS

A&WP	1	Coach	Dec. 15	Budd
B&O	11	Sleeping	Dec. 8	Budd
CRI&P	7	R.P.O.	Dec. 15	Budd
	5	Baggage	Dec. 15	Budd

purchaser in *Railway Age* in December. Estimated cost of the locomotives is $19,100,000; of the freight cars, $4,955,000; and of the passenger-train cars $3,405,000. An accompanying table lists the orders in detail.

During 1952 *Railway Age* reported by individual purchaser domestic orders for 1,312 diesel units, and 15 steam, 10 electric and 15 gas turbine electric locomotives costing an estimated $223,648,000; 34,381 freight-train cars costing an estimated $217,202,000; and 439 passenger-train cars costing an estimated $54,623,016.

Detailed lists, by purchaser, of locomotive and car orders placed in this country and Canada during 1952, compiled from data received from purchasers and manufacturers of railroad equipment, will be published in the January 12 Review and Outlook issue of *Railway Age*.

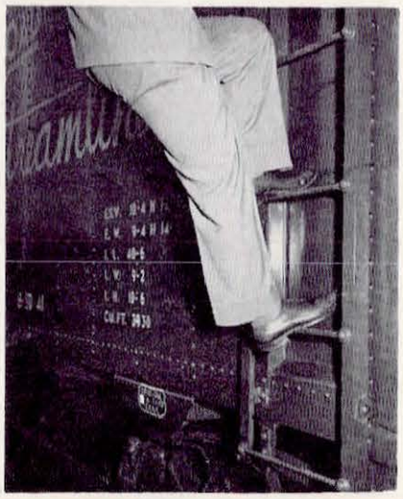
SIGNALING

The **Atlantic Coast Line** has ordered from the Union Switch & Signal Division of the Westinghouse Air Brake Company material to install centralized traffic control on 70 miles of single track between Fitzgerald, Ga., and Hebardville. In addition to the 5-ft. style C control machine, which will be installed at Manchester, Ga., division headquarters, the order includes code and carrier equipment, styles H-2 searchlight signals, N-2 color-light dwarf signals, M-23B dual-control electric switch machines, SL-25 and SL-26 electric switch locks, T-21 switch stands, relays, rectifiers, transformers and housings. Field installation will be handled by railroad forces.

The **Ontario Northland** has ordered equipment from the General Railway Signal Company for installation of absolute permissive block signaling on 13 miles of road between Haileybury, Ont., and Latchford.

The **St. Louis Southwestern** has ordered from the Union Switch & Signal Division of the Westinghouse Air Brake Company material to install centralized traffic control on approximately 68 miles of single track between Brinkley, Ark., and Pine Bluff. In addition to the 5-ft. style C control machine, which will be installed at Pine Bluff division headquarters, the order includes code equipment, styles H-2 searchlight signals, M-23 electric switch machines, SL-6A electric locks, relays, rectifiers, transformers, and housings. Field installation will be handled by railroad forces.

The **Texas & Pacific** has ordered equipment from the General Railway Signal Company for installation of a coded interlocking at Luling, La.



SAFER FOOTING for trainmen using ladders of box cars has been secured by use of a recessed side sheet in back of the ladder rungs. The idea increases rung-to-sheet clearance from two to five inches and permits the climber to place the ball of his foot across the rungs. The innovation was advanced by F. B. Lewis, superintendent of safety of the Union Pacific, and the road has announced that it will be adopted as standard on all new car construction.

SUPPLY TRADE

The **Westinghouse Electric Corporation** will build a new plant for manufacture of welding electrodes and brazing alloys on a 52-acre site near Montevallo, 38 miles south of Birmingham, Ala. Construction is expected to start in February with the completion date set for September. The plant's principal product—welding electrodes—will supply all southern and Pacific Coast states; the brazing alloys will be shipped throughout the United States.

Logan T. Johnston, formerly general manager of sales for the **Armco Steel Corporation,** has been elected vice-president in charge of sales, to succeed the late **John A. Ingwersen. Wallace B. Quail,** formerly manager of central area sales, has been appointed manager of the sales division.

Inauguration of a program designed to assure faster, better and more complete service to railroads has brought about a complete realinement of the **Paxton-Mitchell Company's** sales organization. The company formerly maintained its own corps of sales engineers, with each serving a relatively large area. Under the new sales policy the company's own staff is augmented by 12 special railroad agents strategically located about the United States and Canada in or near key railroad centers. The company also has been appointed national distributor of Goodyear "V" belts for the railroad field.

A. F. Leach has been appointed manager of renewal parts sales for the welding department of the **General Electric Company. Arthur Ward,** a member of the welding department production group, has been appointed manager of electrode sales, to succeed Mr. Leach.

Richard T. Patriquin has been appointed New York sales manager for the **Pennsylvania Flexible Metallic Tubing Company.** Mr. Patriquin joined the company as a salesman in the Philadelphia territory and before his recent appointment was field representative for the vice-president.

Paul J. Wellnitz has been appointed traffic manager, Pacific Coast division, of the **Union Carbide & Carbon Corp.,** with headquarters at 22 Battery street, San Francisco.

The **United States Steel Company** has been merged into the **United States Steel Corporation** as part of a program to simplify the corporate structure of U.S. Steel. The corporation succeeds to all properties and rights of the subsidiary company, and all business formerly conducted by the U.S. Steel Company will be conducted in the name of the U.S. Steel Corporation.

M. S. Dickson, who has been appointed sales engineer of the Union Switch & Signal Division of the Westinghouse Air Brake Company, with headquarters at Chicago. Mr. Dickson joined the company's commercial engineering department in December 1941, remaining with that department until his recent appointment.

The Houston, Tex., district sales office and service department of the **Chicago Pneumatic Tool Company** has been moved to larger quarters at 2120 Canada Dry street, Houston 23.

OBITUARY

James E. Shane, superintendent of yards, roads and transportation at the Fontana Works of the Kaiser Steel Corporation, died recently. Mr. Shane entered railroad service in 1911 with the Pennsylvania. From 1923 to 1946 he was with the Republic Steel Corporation at Massilon, Ohio, where he was superintendent of transportation. He joined Kaiser Steel in 1948.

J. M. P. McCraven, manager of the railway traffic and sales departments of the Texas Company, died December 29, at the United Hospital, Port Chester, N. Y.

FINANCIAL

Bangor & Aroostook.—*New Director.*—George Earle Warren, who retired in 1947 as vice-president in charge of the trust department of the Chase National Bank, has been elected to this road's board of directors. Mr. Warren's experience in railroad finance includes service on reorganization committees for the New Orleans, Texas & Mexico, the Alabama, Birmingham & Atlanta, the Alabama, Tennessee & Northern, and the Missouri, Kansas & Texas.

Consolidated of Cuba.—*Recapitalization.*—Stockholders of this road and the subsidiary Cuba Railroad will vote January 28 on proposed changes in recapitalization plans. The plans have been approved by stockholders but are not yet operative.

One proposed change would reduce assents of preferred stockholders necessary to make respective plans operative from 90 per cent to 70 per cent of preferred shares. Consolidated stockholders also will vote on a proposal to give directors complete discretion, if the recapitalization plan is declared operative, on the question of proceeding with dissolution of the Cuba Northern, controlled by Consolidated.

The major change sought by the recapitalization plans is substitution of three issues of cumulative income debentures, and accrual certificates, for present preferred issues. Reportedly, 67½ per cent of Consolidated preferred and 61.1 per cent of Cuba Railroad preferred has been deposited as approving plans.

Missouri Pacific.—*Reorganization.*—The I.C.C. has reopened this proceeding to obtain evidence as to changes which have occurred since the previous reorganization plan was approved by the commission in 1949 (*Railway Age*, November 24, page 56). Hearings are scheduled to begin Janu-

WHAT ?

NO MORE COAL FOR ME

What will they do?

MINK HAS THE ANSWER

Dieselization of the railroads may mean no more coal for heating cabooses. Mink forsaw this obstacle and has developed and offers an entirely new oil burning heater. They have even gone a step farther and added a cooking surface for the advantage of caboose personnel. Built for really rugged service, it offers as much heat as is necessary, in any climate. Not a standard commercial unit but designed for this particular purpose by men experienced in railroad requirements, to meet railroad needs.

HERE IT IS—

No. 23

CABOOSE HEATER

and

COOK STOVE

Made of Heavy gauge steel with cast top for cooking purposes. Heavy steel legs with provisions for bolting unit to floor. A pot burner type that will burn kerosene, signal oil or No. 1 fuel oil.

Write for circular with additional information.

MINK

E. W. MINK
& Associates, Inc.
117 N. Findlay St., Dayton 3, Ohio

MOBILIFT
Lev-R-Matic DRIVE
FORK LIFT TRUCKS

for low cost handling!

Stand-up & Sit-down Models
2,000, 2,500, 3,000, and 3,500 capacities on 15" load center.
63", 72", 83" Masts.
Special Masts to Order.
WRITE for Complete Specifications

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MOBILIFT CORPORATION
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2730 San Pablo Ave., BERKELEY

ary 27 in Washington, D. C., conducted by Commissioner Mitchell.

St. Louis-San Francisco.—*Stock Option.*—The I.C.C. has authorized this road to issue 90,000 shares of its no-par common stock in connection with a stock option plan for "certain officers and employees" (*Railway Age*, December 1, page 105). The plan will permit key employees to acquire a "proprietary interest" in the road, and will help assure the carrier of the continued service of these employees. A three-man committee from the road's board of directors will administer the plan, and will select those employees eligible to participate.

Southern Pacific.—*New Director.*—Stephen D. Bechtel, president of the Bechtel Corporation, has been elected a member of this road's board of directors.

Staten Island Rapid Transit.—*Partial Abandonment of Passenger Operations.*—The New York Public Service Commission has authorized this road to discontinue passenger service on its East Shore and North Shore branches after next March 31. Permission was granted as a compromise between the road's request to abandon all passenger service and New York City's position that no service should be eliminated (*Railway Age*, October 13, 1952, page 171). Passenger service will be continued between St. George and Tottenville.

Wabash.—*New Director.*—Paul E. Connor, chairman and president of the Western Auto Supply Company of Kansas City, Mo., has been elected a member of this road's board of directors and also of its finance committee.

New Securities

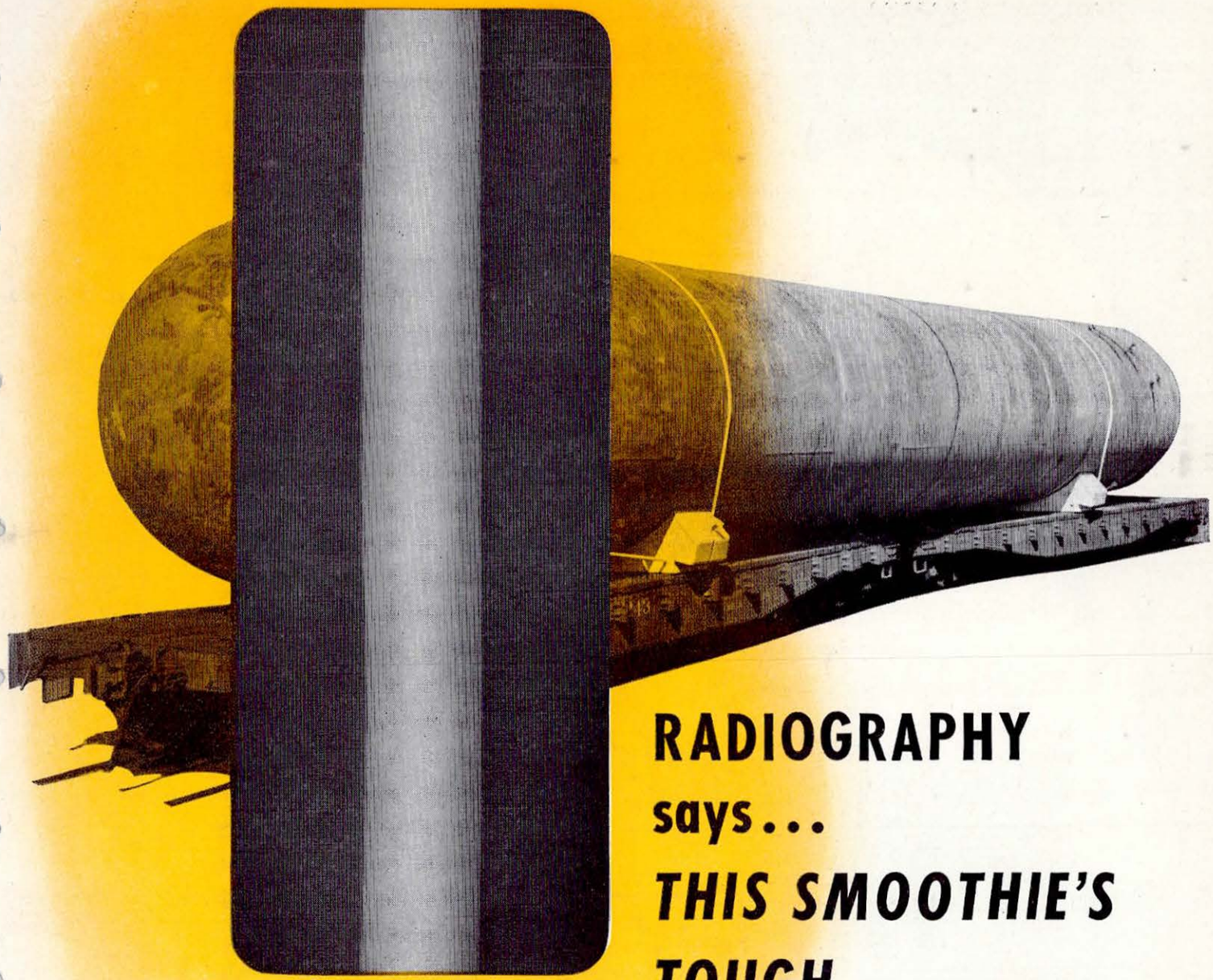
Division 4 of the I.C.C. has **authorized:**

BOSTON TERMINAL CORPORATION.—To issue a $3,500,000 promissory mortgage note as one of the final steps in reorganizing the old Boston Terminal Company. The note, with interest at 4⅝ per cent, will be purchased at 100 by the John Hancock Mutual Life Insurance Company. Payments on the note will be in monthly installments of $21,000 each. The note will be secured by a first mortgage on the terminal property (*Railway Age*, December 1, page 104). Proceeds will be applied toward paying claims of bondholders of the old terminal company.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—To assume liability for $2,640,000 of series H equipment trust certificates, to finance in part 500 freight cars and three passenger-train cars costing an estimated $3,316,168 (*Railway Age*, December 8, page 17). Division 4 approved sale of the certificates for 99.619 with interest at 2⅞ per cent—the bid of Halsey, Stuart & Co. and three associates—which will make the average annual cost of the proceeds to the road approximately 2.94 per cent. The certificates, dated December 15, will mature in 15 annual installments of $176,000 each, beginning December 15, 1953. They were reoffered to the public at prices yielding from 2.25 to 2.975 per cent, according to maturity.

SPOKANE INTERNATIONAL.—To issue $290,000 of promissory notes, to reimburse the road in part for additions and betterments made during the past three years (*Railway Age*, November 24, page 65). One note, for $210,000, will be secured by series B income mortgage bonds which the road is issuing in the amount of $290,000. The entire issue will be pledged as security for the note. The other note, for $80,000, will be

(*Continued on page 53*)



RADIOGRAPHY says... *THIS SMOOTHIE'S TOUGH*

This 90-ft. pressure vessel looks smooth, clean, and neat. But that's not all that welding did for it. It helped make the tank strong and tough with less weight and at lower cost.

Designers of pressure vessels can take full advantage of the welding process because each weld can be proved sound by radiography.

This is how radiography widens the opportunities for welders—why it can increase your business.

Wouldn't you like to know more about how it can help you? Get in touch with your x-ray dealer and talk it over.

EASTMAN KODAK COMPANY
X-ray Division, Rochester 4, New York

Radiography . . .
another important function of photography

Kodak
TRADE-MARK

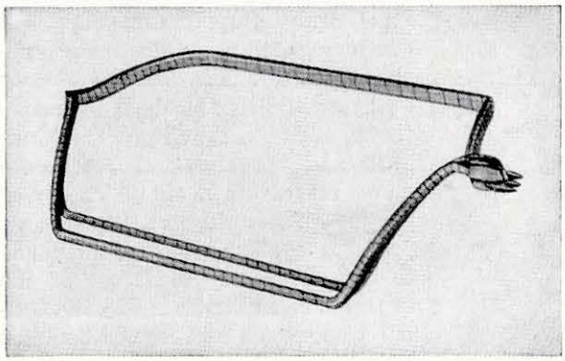
You build long life into G-E traction motors by always using genuine replacement coils

You can realize important savings in rewind costs by always using genuine General Electric replacement coils. They're easy to wind and last longer, because they withstand extremely high operating temperatures, and last longer because they stay tight in the core slots.

Each G-E coil is dimensionally accurate. And, through G.E.'s continuing research and development program, you get the correct coil insulation and proper varnish treatment for the job.

To get top performance—"original equipment" performance—from your Alco-G.E. locomotives, always specify genuine G-E armature and field coils for rotating equipment. They're the best you can buy for your Alco-G.E. locomotives. For full pricing and product information, contact your sales representative for Alco-G.E. locomotives.

128-5



INSULATION'S THE KEY TO LONG COIL LIFE

Because insulation largely determines coil life, G-E coils (like GE-752 armature coil, above) use high-temperature tapes, such as silicone-mica, best-suited for the job, and inner and outer coats of proper varnish to help prevent deterioration. Coils are designed to fit accurately and snugly to speed heat dissipation.

Alco GE

AMERICAN LOCOMOTIVE and GENERAL ELECTRIC

Announcing formation of

FRANKLIN BALMAR CORPORATION

Effective January 1, 1953, the name of The Balmar Corporation, Woodberry, Baltimore, Maryland, has been changed to Franklin Balmar Corporation.

Franklin Balmar Corporation, which is wholly owned by the Franklin Railway Supply Company, will continue as the manufacturing subsidiary of Franklin Railway Supply Company. Balmar has been manufacturing all of Franklin's products since 1933 and the change in corporate name represents a simplification of corporate structure and operating procedures. This change is being made to better identify the scope of the business being conducted by the Corporation, which has been evident for some time in the types of non-railroad, as well as railroad, equipment being manufactured by Balmar.

The engineering and sale of Franklin railway devices in the future will be handled by Franklin Balmar Corporation and all Franklin devices, and repair parts for those now in service, will be available from Franklin Balmar Corporation. The company will also continue to develop and manufacture new equipment for railway service and for other industries.

Strand flexible shaft equipment will continue to be manufactured and sold by the N. A. Strand Division of Franklin Balmar Corporation, both at Chicago and Baltimore.

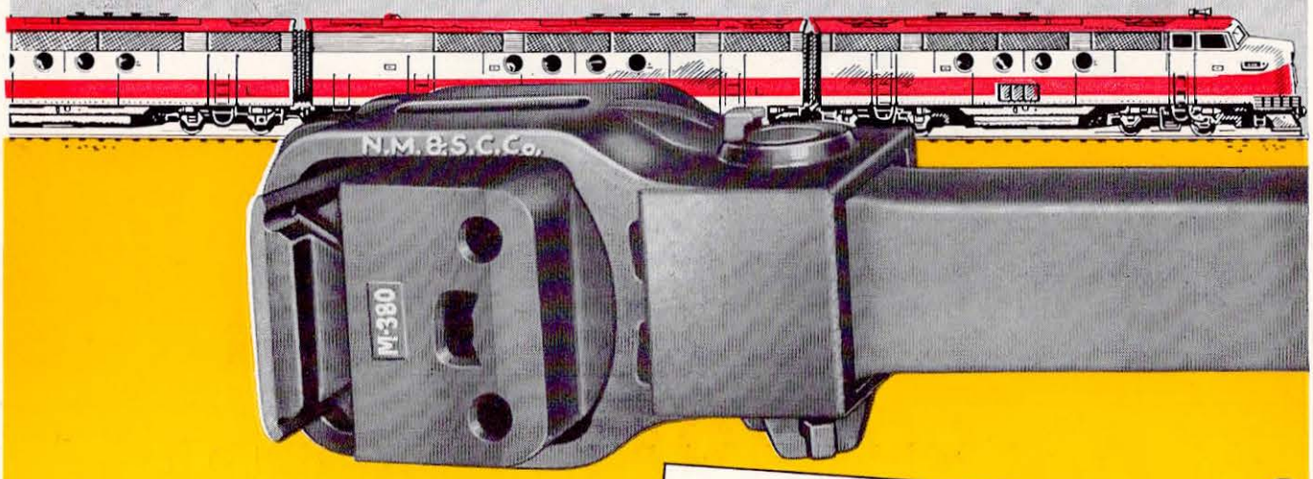
Headquarters of Franklin Balmar Corporation will be at Woodberry, Baltimore 11, Maryland. Eastern sales will be handled from Baltimore and Western sales will be handled from 5001 North Wolcott Avenue, Chicago 40, Illinois.

FRANKLIN BALMAR CORPORATION

NATIONAL

RUBBER-CUSHIONED DRAFT GEARS

for Diesel Locomotives



. . . COMPLETE THE DRAW-GEAR ASSEMBLIES

along with

NATIONAL COUPLERS of AAR H Tightlock or AAR E Design and rugged, quality-controlled Cast Steel YOKES

RUBBER IS THE THING!

Its use as the cushioning medium in NATIONAL gears for this exacting service has been proved by every means available to roads and diesel builders.

for

PERFORMANCE and ECONOMY

APPRAISAL OF MERIT IS BASED UPON

HIGH CAPACITY	This increases with severity of the shock.
MORE PROTECTION	A greater proportion of the impact is cushioned over the entire range of capacity.
LOWER SILL PRESSURES	The primary function of National rubber gears is to protect car and locomotive structure. Effectiveness of rubber for cushioning is outstanding at the higher levels of shock intensity.
NO CREEPING	Rubber eliminates the creep or slip which readily occurs in friction gears under fluctuating load.
RESPONSE TO DRAWBAR FORCE	Action of National rubber gears is smooth, instantaneous and effective.

NATIONAL'S ENGINEERING, in conjunction with the rubber manufacturer, solved the diesel draft gear requirement with designs adapted to short sill pockets. Builders' objective called for the maximum reduction in chassis overhang. This was accomplished by the short gear pockets and special yoke designs made possible by the use of National Rubber-Cushioned Draft Gears.

Our practical designs vary chiefly from standpoint of amount of rubber needed to meet different ratings of diesel units based upon continuous tractive effort. The renewable gear pads used, comprise rubber of engineered contour and tested compound vulcanized to surfaces of steel plates. There is no metallic abrasion against rubber surfaces.

The strong steel gear castings are held to close tolerances for tight fit in National yokes and positive bearing of broad surfaces to sill pocket stops. A-5355

ABOUT 95% OF ALL DIESEL ROAD UNITS AND LARGE PERCENTAGE OF SWITCHERS NOW IN SERVICE ARE EQUIPPED WITH NATIONAL RUBBER GEARS

NATIONAL MALLEABLE and STEEL CASTINGS COMPANY

Cleveland 6, Ohio

COUPLERS • FREIGHT TRUCKS • YOKES • FRICTION AND RUBBER DRAFT GEARS • JOURNAL BOXES AND LIDS

NATIONAL Products FOR TRANSPORTATION AND INDUSTRY Est. 1868

until you've investigated

G-E SILICONE RUBBER!

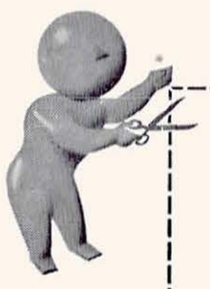
In the market for rubber parts? Then you'll want to investigate the amazing advantages of General Electric silicone rubber before you buy or specify. Designers find G-E silicone rubber solves problems where conventional rubber fails . . . that it does jobs *no other* rubber can do!

For example, G-E silicone rubber remains flexible from —100 to 500 F and has unusual resistance to weather and chemical attack. This means long-lasting rubber parts for applications heretofore impractical with ordinary elastomers. It means:

- **Increased safety factor**—vital to aircraft
- **Less replacement cost**
- **Less rubber parts inventory**
- **A minimum of customer complaints** due to failure of conventional rubber

And . . . G-E silicone rubber can add important "sales pluses" to your product lines!

Get more information! Why not send today for a free booklet, "Imagineering with Silicone Rubber"? It describes the amazing properties of this material and its applications. Find out how G-E silicone rubber—now three times stronger than early varieties and available in many new forms—is more useful than ever. Just mail the coupon.



G-E silicones fit in your future

GENERAL ELECTRIC

CLIP AND MAIL TODAY!

General Electric Company
Section 342-1D
Waterford, New York

Please send me, free, your new booklet "Imagineering with Silicone Rubber." I am interested in G-E silicone rubber for:

( ) Seals and gaskets
( ) Wire and cable insulation
( ) Tapes and cloths
( ) Sponged products
( ) Belting
( ) Boots, sleeves, bellows
( ) Hose and ducting

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Address_____

City_____ Zone___ State_____

THE ENGINEER'S REPORT

DATA

LUBRICANT Calol Rail + Flange Lubricant

LUBRICATOR Mechanical

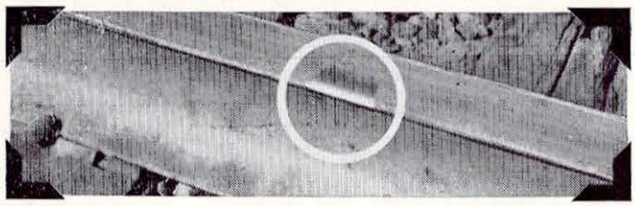
LOCATION California + Oregon

CONDITIONS Ambient temp. -20° F. to 110° F. Continuous use

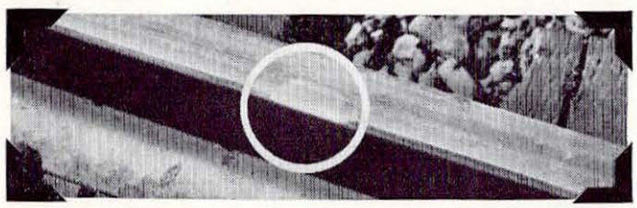
TEST PERIOD 10 months

New rail-flange lubricant meets toughest conditions!

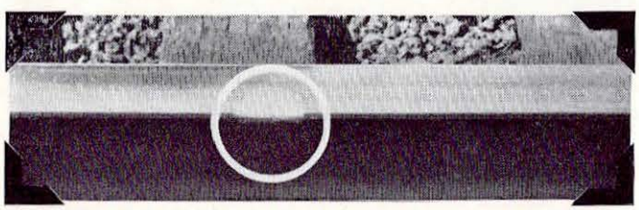
CALOL RAIL AND FLANGE LUBRICANT, tested continuously for 10 months at six locations on a major western railroad, proved entirely satisfactory. Although air temperatures ranged from 20 below zero to 110 above, the lubricant retained correct consistency for good pumpability both in storage and lubricators. Grease buttons on wiping bars remained in position even in direct sunlight. Coverage was excellent, as demonstrated by photographs below of rails at successive curves serviced by the lubricator shown at right.



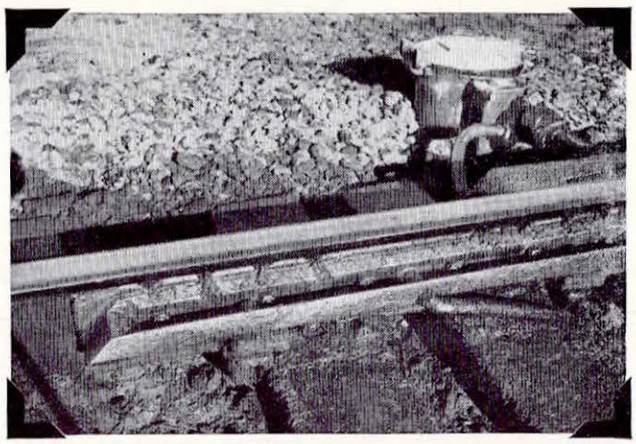
FILM OF CALOL RAIL & FLANGE LUBRICANT at first curve. Circled area is wiped clean for contrast.



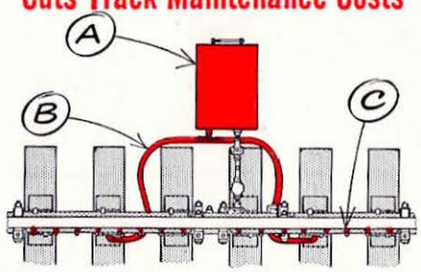
FILM OF LUBRICANT on second curve from lubricator.



THIRD CURVE. Note grease is still well distributed.



How Calol Rail and Flange Lubricant Cuts Track Maintenance Costs



A. Stable in use and storage—will not separate, "bleed" or harden.

B. Pumps freely from lubricators from below zero temperatures to over 100 degrees. Retains even consistency.

C. Forms stable buttons which resist high temperatures. Very adhesive—carries for long distance on rails. Resists tendency to pull over tops of rails.

FREE CATALOG: "How to Save Money on Equipment Operation," a new booklet full of valuable information, will be sent you on request to Standard Oil Company of California, 225 Bush St., San Francisco, Calif.

CALOL

TRADEMARK "CALOL" REG. U.S. PAT. OFF.

FOR MORE INFORMATION about this or other petroleum products of any kind, or the name of your nearest distributor handling them, write or call any of the companies listed below.

STANDARD OIL COMPANY OF CALIFORNIA • San Francisco 20
THE CALIFORNIA OIL COMPANY • Barber, New Jersey
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MODERN TIME and COST SAVERS BUILT BY... Standard GRAVITY & POWER CONVEYORS

Standard LITEWATE Sectional Roller Conveyor

LIGHT AND EASY TO CARRY

Put it where you need it!

— ideal for loading and unloading trucks and conveying jobs that require moving about — one man can easily pick up and carry a section or curve with little effort. Handles commodities weighing up to 60 lbs. — moves bags, cases, cartons, hollow bottom, narrow, cleated and irregular packages or articles not suited to wheel conveyors. Available in 10 ft. and 5 ft. straight sections and 90° and 45° curves. Write for Bulletin 63 B — address Dept. RA-13.

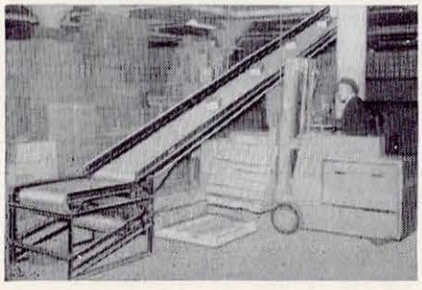
Standard All Purpose Roller Conveyor

— available in a complete line of roller sizes and capacities designed to allow the selection of the best roller for the job, from a 1 inch diameter roller, capacity 35 lbs., to a 3½ inch diameter with a capacity of 550 lbs. Any commodity with one smooth riding surface can be carried — boxes, cases, cartons, lumber, milk cans, brick, building tile. Straight sections and 90° and 45° curves. Write for Bulletin 63 B — address Dept. RA-13.

Faster Handling in Shipping Rooms with the HANDIBELT

— conveys bags, cartons, boxes horizontally or at any decline and incline angle within its range. Easily wheeled about by one man — easy to adjust and use — fits in crowded aisles, cars, freight elevators. Handles packages up to 135 lbs. Can be placed in series to form a complete conveyor line. Available in 3 sizes: No. 11, No. 16, and No. 21 with 14 and 21 inch belt widths. Write for Bulletin No. 63 B — address Dept. RA-13.

Lift or Lower . . . Floor to Floor . . . with the INCLINEBELT



— move boxes, cases, cartons, sacks or bundles from basement to first floor, or any floor to floor — continuously. Compact, simple to install — minimum maintenance. Lift or lower 10 to 20 lbs. of live load per ft.; floor elevations of 8 ft. to 14 ft. 6 inches inclusive; belts widths — 8, 12, 14, 18 and 24 inches for commodities of various sizes. A horizontal feed section is generally used to deliver commodities to the Inclinebelt. Write for Bulletin 63 B — address Dept. RA-13.

STANDARD CONVEYOR COMPANY

General Offices: North St. Paul 9, Minnesota

Sales and Service in Principal Cities

Send for Standard Bulletin 63 B describing gravity and power conveyors units — address Dept. RA-13

Current Publications

PAMPHLETS

The Story of Safety. 28 pages, illustrations. E. I. du Pont de Nemours & Co., Wilmington 98, Del. Free.

This is the story of what Du Pont is doing to safeguard its people from harm. The basic principle of its safety performance, the booklet points out, is simple —safety is the responsibility of management, in all phases and at all levels of organization. Every member of supervision, from the newest foreman to the top level authority, is responsible for the safety of the men and women working with him. Safety practices, subject to continual attention and revision, attempt to anticipate every possible risk that may arise, on the theory that well-trained people, using every available precaution, can avoid all personal injuries.

Symposium on Spectrographic Analysis of Diesel Engine Lubricating Oil. 76 pages, illustrations. American Locomotive Company, Schenectady 5, N.Y. Free.

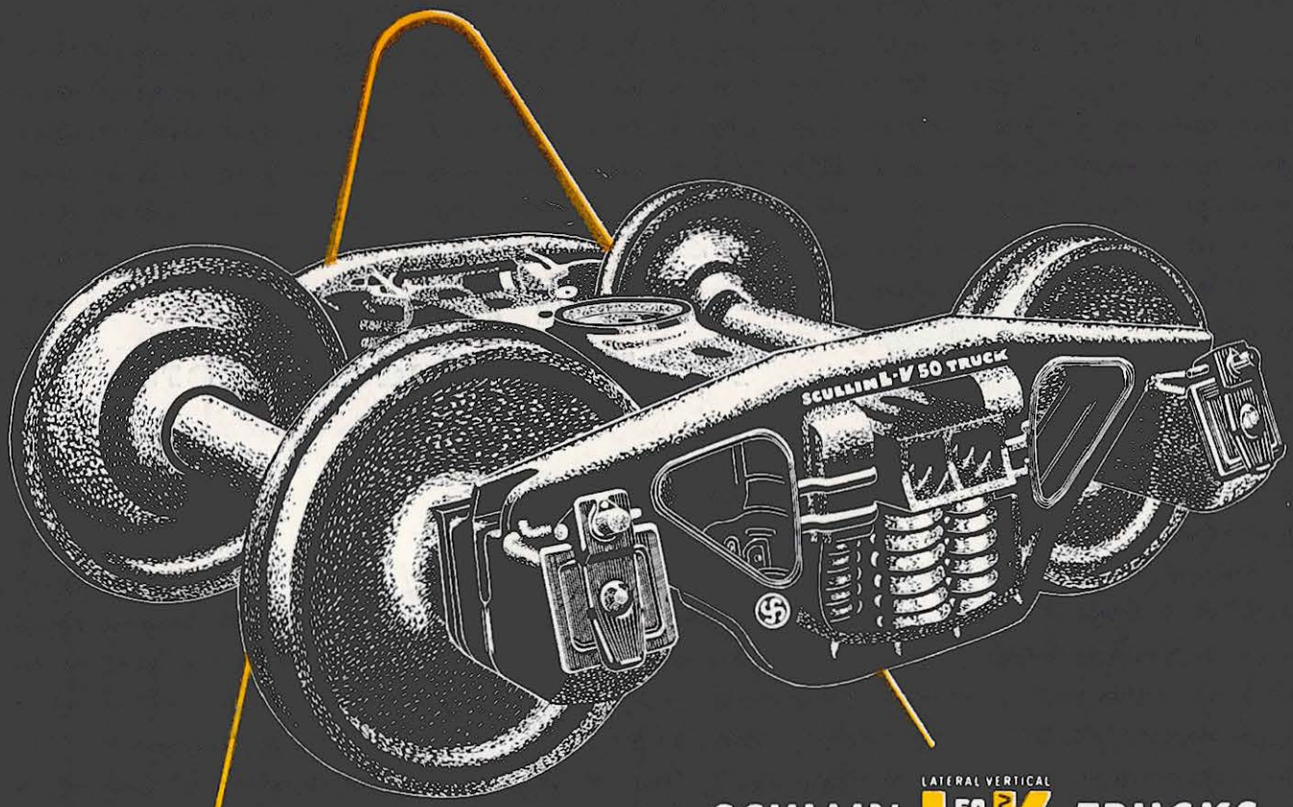
This pamphlet, describing how the spectrograph—a scientific instrument that can detect exceedingly small amounts of chemical elements in any substance—is now being used by diesel locomotive specialists to control engine maintenance and prevent costly breakdowns, is a carefully edited transcription—based on on-the-spot tape recordings—of nine technical papers delivered at a symposium sponsored by the American Locomotive Company last spring, and attended by 86 representatives from 43 railroads in all parts of the United States and Canada (*Railway Age*, May 26, page 15).

Bulletin No. 87. 110 pages, illustrations. Railway & Locomotive Historial Society, Baker Library, Harvard Business School, Boston, Mass. $1 to members; $2 to nonmembers.

Paul T. Warner has contributed a very interesting article on some early locomotive patents to this bulletin; drawings of the patents are included. Charles E. Fisher, editor of the bulletin, has also contributed an article on through car service from New England. Other articles include biographies of the five men who were active in development of the Central Military Tract Railroad; the Louisville & Nashville's Pacific and Mountain type locomotives; 100 years of railroad progress in Elkhart, Ind., dealing chiefly with the Lake Shore & Michigan Southern and the western roads that made up that system; and the origin of locomotive class names.

Truck & Bus Drivers Rule Book. 40 pages. Association of Casualty and Surety Companies, 60 John st., New York 38. Available at production cost of $6.50 per hundred.

This handy, pocket-size digest is designed for use of individual drivers. It incorporates those portions of the I.C.C.'s Motor Carrier Safety Regulations, Revised (effective July 1, 1952), which directly concern the driver, his qualifications, his training, and his operation of a vehicle.



SCULLIN L 50 V TRUCKS

LATERAL VERTICAL CUSHIONED MOTION

THE SMOOTHEST TRAFFIC-BUILDERS
BETWEEN LCL AND YOUR RAILS

STEEL CASTINGS MANUFACTURER

NEW YORK
CHICAGO
BALTIMORE
RICHMOND, VA.

Photo courtesy Canadian Pacific Railway . . .

SCULLIN STEEL CO.

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$12.00 ALLOWANCE
On Your Old 9" Alco Cylinder Liners

When You Purchase New GUN IRON LINERS

Now Hunt-Spiller offers you the opportunity to replace 9" Alco liners on a money-saving exchange basis. With each order of a new Gun Iron liner, we will allow a credit of $12.00 for a used 9" Alco liner, either plated or unplated, and of any make.

This plan permits you to obtain a *new* cylinder liner free from any cavitation or stress which would ultimately result in fatigue failure—both probable imperfections in a reclaimed liner.

Hunt-Spiller's Gun Iron liners are unplated. Because of its dense, pearlitic structure Gun Iron provides the wear-resistant properties that can only be secured by plating other materials. The wide acceptance of Hunt-Spiller liners by major railroads throughout the country proves their dependability. They are Parco lubrized and service records show quick break-in, reduced oil consumption and long life.

These liners are carried in stock available for immediate shipment.

GUN IRON

A new catalog of diesel parts currently being produced by Hunt-Spiller is now available. Your copy will be sent without obligation upon request.

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Canadian Representatives: Joseph Robb & Co., Ltd.
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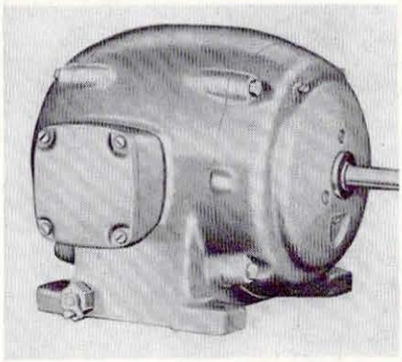
Export Agents: International Rwy. Supply Co.
30 Church Street, New York 7, N. Y.

Explosion-Proof Motors

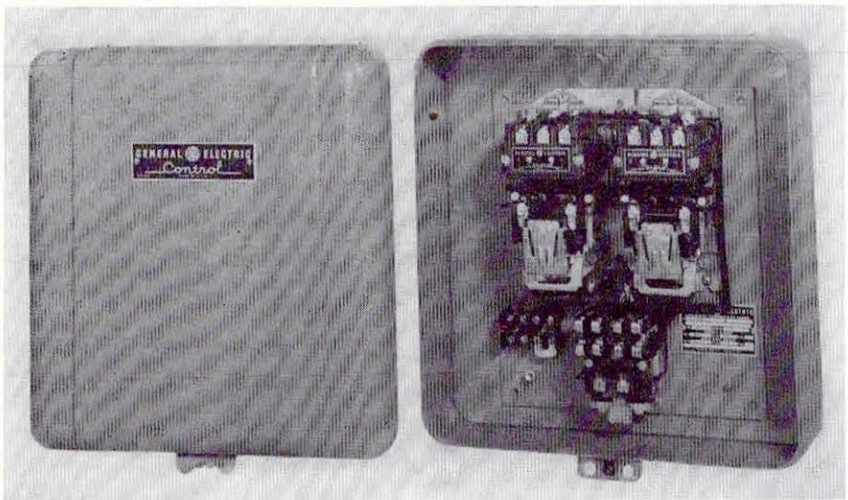
A totally-enclosed motor, designated Type SS, has been developed by U.S. Electrical Motors Inc., Los Angeles 54. It is designed for services where dampness, dust, fire hazards and corrosive fumes are prevalent. Because of its construction it is self-cooling. This eliminates the use of an exterior fan and heat-dissipating fins. The smooth exterior lends itself to wiping off or hosing down—an important feature for motors to be used in dusty and dirty locations. It is also provided with a slinger to protect the output shaft bearing against the entrance of dirt or water. The motor has been approved for explosion-proof service in hazardous locations by the Underwriters' Laboratories, Inc.

There sometimes occurs in totally enclosed motors a moisture condensation caused by breathing of a motor under certain conditions. This can cause grounding of the motor. To overcome this problem, the motors are fitted with a drain plug which will release water from the interior while still retaining its explosion-proof characteristics.

The motors are available in a range from 1/3 to 2 hp. (also fan-cooled to 75 hp.) and will later be produced in larger ratings. Complying to N.E.M.A. standards, the motors have sealed terminal chambers, normalized castings, asbestos-protected windings, solid



centricast rotor, and Lubriflush bearings which provide an extra large lubricant chamber and provision for forcing the grease through the bearing for a thorough purge of the old grease.



Automatic Throwover Panel

A control device that transfers electric circuits to an emergency power source when the normal source fails has been announced by the General Electric Company, Control Department, Schenectady, N.Y. The new panel automatically transfers emergency lighting circuits, signal or communication systems, exit markers, regulating and metering equipment, fire protection apparatus, etc., to a standby power source when the regular supply is interrupted.

The panel consists of mechanically interlocked normal-source and emergency-source contactors, and a pilot contactor.

Besides transferring circuits from a failed normal source to an emergency source and back again upon resumption of regular service, these contactors also control standby power equipment, such as an auxiliary generator, turning it on and off at the appropriate times.

Annealing of the entire magnet structure reduces residual magnetism, assuring consistent drop-out voltages and quick transfer of the load to the emergency source. The load contactors have a coil completely impregnated in a solid block of solventless varnish for maximum protection against moisture and mechanical damage. For special applications requiring close control of transfer voltage, as on power lines of poor regulation, a voltage-sensitive relay can be provided to transfer the load at a very closely controlled voltage point.

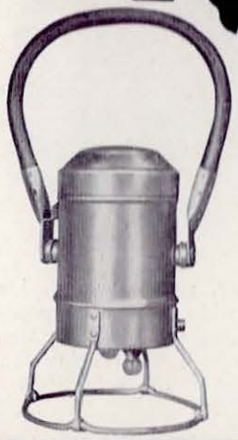
Also, in applications where momentary voltage interruptions are sometimes encountered, as from lightning surges, a time-delay relay can be used to prevent the transfer until after a specified time has elapsed.

Air Meter for Field Service

An air velocity meter, made by the Hastings Instrument Company, Hampton, Va., is now being supplied with a battery-operated power pack, making the instrument suitable for portable applications. The power pack includes a 6-volt dry battery and a converter which provides 110-volt a.c. output. It is protected by a sturdy hardwood carrying case which also provides space for the air meter.

The air meter with the power pack is designed for measuring air velocities where 110-volt power supply is not available. Air velocities in such usually inaccessible places as air conditioning ducts, chimneys and rooftop ventilation fans may be measured with the meter by employing the battery-operated power pack.

FIRST WITH RAILROAD MEN COAST TO COAST!



STAR MODEL 202-R

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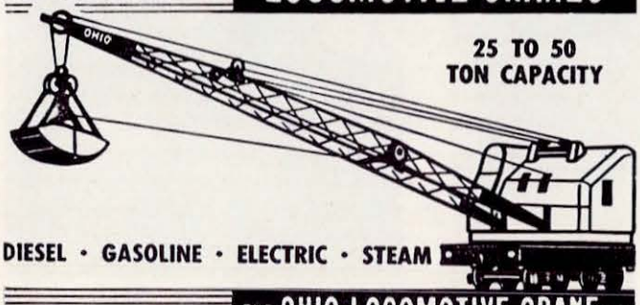

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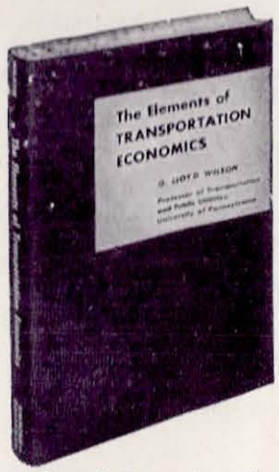

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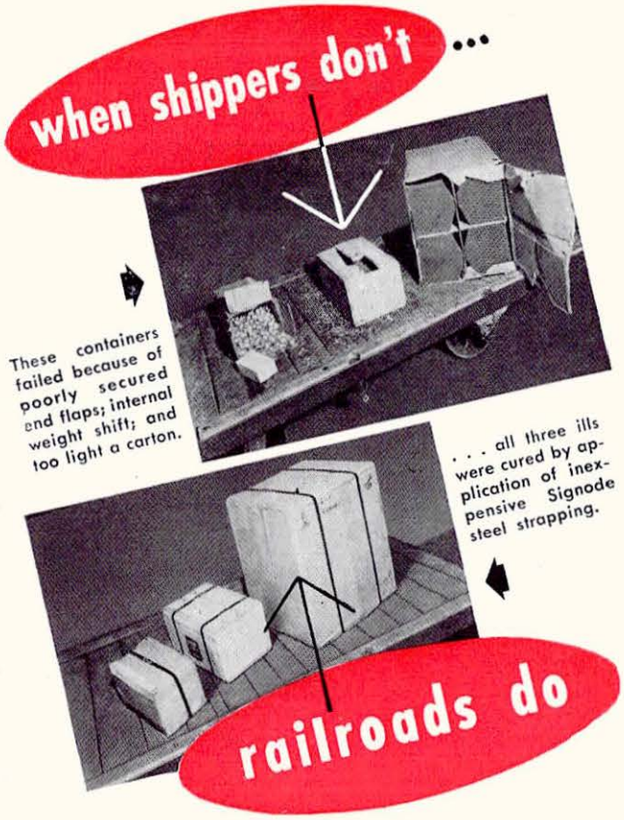
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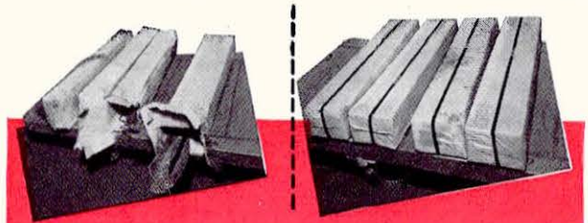

Better internal packaging would have prevented this damage. The railroad recoopering crew had to hold up delivery to do what should have been done before—with Signode steel strapping.

Some shippers astonish even container manufacturers with the faith they put in their products. For example, the containers shown here were sent to market strapless. Results . . . embarrassing delays, a trip to the recoopering shop, and expensive freight damage claims.

In the railroad recoopering shop where these photos were taken, strapping methods are popular. There is a good reason. They are based on information about new and better tested and approved ways to protect shipments in transit passed on by Signode fieldmen.

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Benchmarks and Yardsticks

THERE ARE A LOT OF PEOPLE who favor increased educational opportunities for railroad employees, but usually such advocates, when vocal, are fellows who are not directly in a position to give direct effect to their opinions. Certainly, on the average, there has been mighty little leadership on the part of the railway unions in this direction. A notable exception is Jesse Clark, president of the Brotherhood of Railway Signalmen, who spoke on this subject at the recent annual meeting of the Signal Section, A.A.R. As reported in our affiliated magazine, *Railway Signaling and Communications*, Mr. Clark said, in part:

"To point out the short-sightedness of labor, and perhaps our brotherhood, to date—we have been unwilling to endeavor to improve our knowledge by proper study and application. We have been unwilling to permit management to weed out the undesirable and those who think more of the pleasures of life than to try to further their own knowledge of the art. We have been unwilling to permit management to transfer employees who are in training from point to point, in order that they might acquire knowledge of the several phases of signaling. We have insisted on too rigid application of seniority rules to permit the establishment of training points or territories.

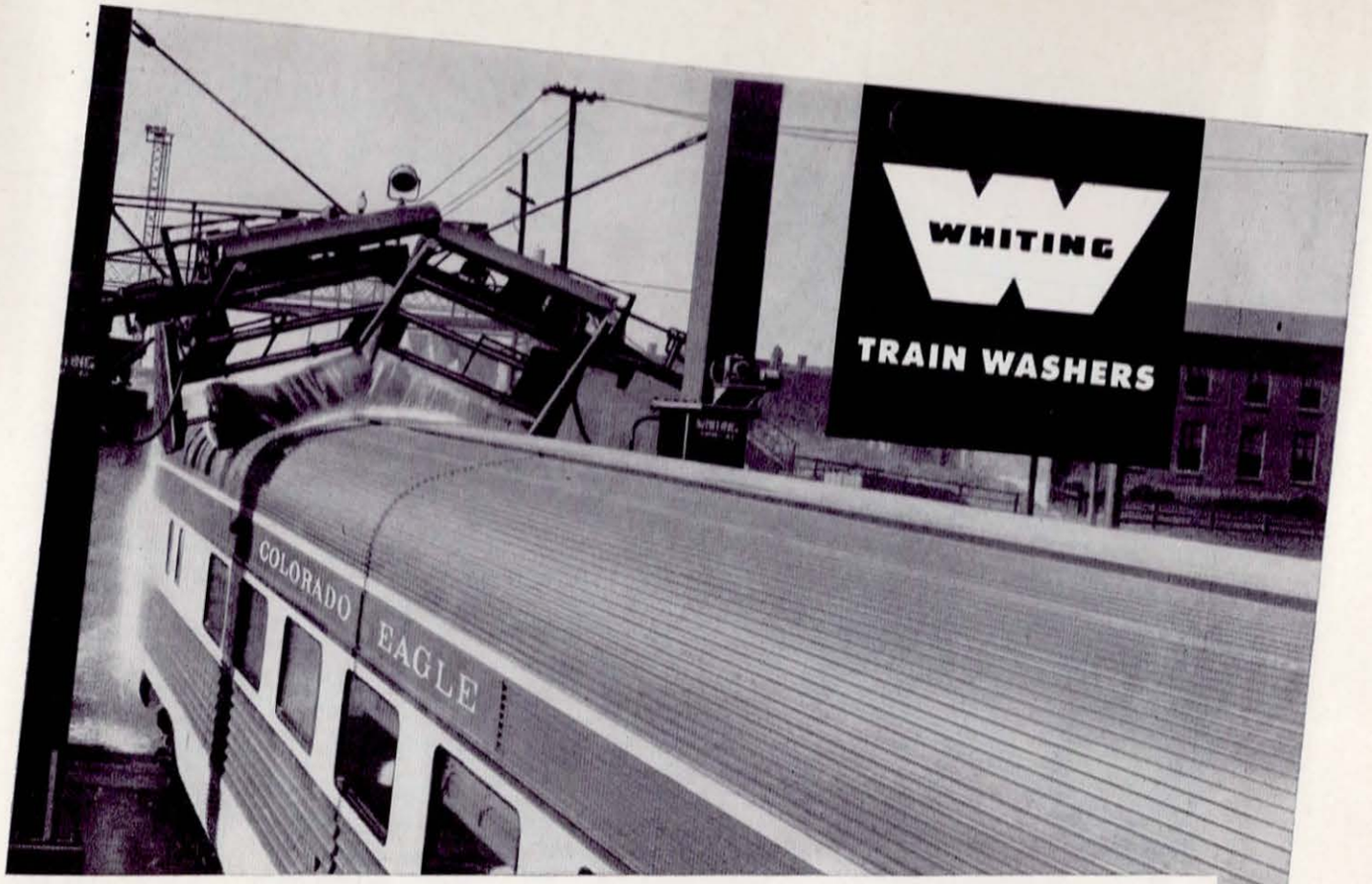
"Having all of these things in mind, and believing in the future of our craft and department, I am happy and free to inform you that at a recent convention of our brotherhood a motion was unanimously adopted to create a basic set of rules, to be used as a guide in further negotiations with our managements to bring about a training program for our people which will not be burdensome to the carriers nor a detriment or hindrance to the employees.

"Accordingly, we are now ready and willing to sit down with our managements with an open mind either collectively or individually, in an effort to bring about the establishment of a definite training program, while looking progressively to the future."

Before making this challenging offer of union cooperation, Mr. Clark called attention to the shortage of adequately skilled signalmen and to the failure, thus far, of the railroads to indicate a willingness on their part to assume the cost of textbooks, practice equipment, and the like.

There is a lot of information that railroad managements would like to have their employees acquire, but there are mighty few employees who are going to exert themselves to learn a lot about economics and managerial problems unless their desire to learn more about their own jobs is satisfied first.

J. G. L.



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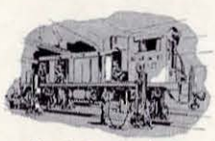

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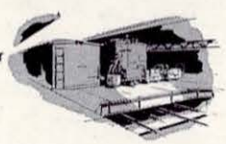

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The St. Louis Terminal Railroad uses a Whiting Train Washer with cantilever roof brushes which overlap to assure thorough roof cleaning, as illustrated.

RAILWAY AGE
EDITORIAL COMMENT

MORE AND BETTER TRAFFIC INFORMATION FOR RAILROAD MEN

In launching right about this instant a new monthly publication, *Railway Freight Traffic*—designed to circulate among the railroads' freight customers—*Railway Age* isn't cutting down any in *Railway Age* itself on traffic articles for its regular railroad readers. The only change as far as *Railway Age* is concerned is that, hereafter, we're not going to concentrate these traffic articles for railway readers in the first issue of each month—as we've been doing—but will publish them as they come along, in any and all issues.

The staff of editors who have been writing traffic articles for *Railway Age* isn't being reduced or transferred to the new magazine—which has its own separate staff—and our *Railway Age* traffic and transportation editors will keep right on producing traffic-minded articles for these pages. We expect them to do a bigger and better job, now that we've relieved them from writing articles primarily designed for the edification of shippers and receivers of freight.

This continued emphasis on the traffic "angle" in *Railway Age* is not just our own idea, but is also that of a host of our friendly advisers among railway men—many of whom, when they heard we were launching a new magazine for railway customers, hastened to give us this kind of advice: "For Pete's sake, don't cut down on the traffic emphasis in *Railway Age* because, if there's anything railroad men need, it's to be made more 'customer-minded.' You've made a good start toward getting them to thinking in those terms with your 'Freight Traffic Issues' of *Railway Age*. Don't go cutting down on this good work now."

Our answer is: We won't. But we're happy to have this advice, anyhow, because it confirms the conviction we've already had ourselves—namely, that the traffic "angle" ought to be emphasized in these pages although no shipper might ever see them. In every article where traffic considerations could have any bearing, such considerations ought to be made explicit.

Everything that goes on around a railroad is, or ought to be, aimed at the customer. If it's new or faster train service, or a new freighthouse, the customer connection is fairly obvious—but the connection is there even when it isn't so plain. Suppose it's a better method of handling stores or promoting more economical equipment repairs—what's the purpose of such improvements as these except to enable a railroad to earn its keep without having to pass along all increases in expenses to the customers in higher rates?

Top management and financial management are always, and should be, powerfully economy-minded—and, maybe, their immediate objective is larger earnings for the owners (a class of people who certainly deserve a break occasionally, and who get it seldom enough). But larger earnings for stockholders mean that increased investment funds are made available for service improvements. That, plus help in keeping railroad rates lower than they'd otherwise have to be. And when rates are kept at a moderate level and service is improved, the customers respond by giving more traffic to the railroads. And more traffic moving by rail means more dependable earnings for security-holders and more jobs and more promotions for railroad employees and supervisors; and more purchases of materials from railroad suppliers. When the customers are happy about the way the railroads treat them, everybody in and around the railroads is better off.

This condition ought to be fairly obvious, but all of us nowadays are specialists. Some of us (like your reporter) push a pencil for a living. Others repair cars or locomotives. Others maintain track and signals. Others run trains. It's mighty easy for all of us to get to thinking that pushing pencils, or maintaining this or that, or switching, or whatever our job happens to be—is an important activity all by itself. It isn't—none of this work means anything unless it serves and attracts customers. For instance, a passenger conductor your reporter noticed a few days ago seemed to think that his job would be a better one if he could drive all the passengers off his train. Of course, he was mistaken. If the kind of conducting he was doing were to achieve its logical result, that conductor wouldn't have a job, and neither would the rest of the crew; and maintenance

employees and other railroad men would have to be laid off. Less fuel and less equipment would be purchased.

The editors of this paper conceive it to be one of their primary duties to keep reminding themselves and their readers all the time that the customer is king—in a free country; and that it's suicide for any of us to forget him, even for a single moment. So we're going to keep on emphasizing the "traffic angle" in these pages—and we shall perform this duty even to the point of becoming critical, when criticism is called for. Our new traffic magazine for railroad customers will put its emphasis on the things that the railroads are doing for their patrons which are right—and there are a lot of such things to report. But here in *Railway Age*—strictly within the railroad family—we can be pretty frank about pointing out the many things all of us could do to serve his majesty the customer a whole lot better than we're yet doing it.

Any railroad man who wants to subscribe to our new publication for railroad customers will be welcome, but there'll be no need for him to do so to get the "customer angle" as information about it applies to his job. That angle he will find fully reported right here in these pages—and we're going to improve the performance to the best of our ability.

Needed—Rates to Reflect Economies of Steady Patronage

It is a curious fact, although the railroad business and the electric utility business are similar in their essential characteristics, that the rates of the two industries are constructed on entirely different principles. It is worth noting, further, that the business of the electric utilities grows at a faster rate than the country's population, while the railroads handle a constantly declining ratio of the nation's freight traffic.

Both the railroads and the electric companies incur a large part of their expense before either of them directly serves its customers—whether with transportation or electric current. A railroad has its tracks and structures, its rolling stock and other facilities ready for business 365 days a year and 24 hours a day—alike for the customer who uses the service one day a year or 365 days. And the customer who patronizes the railroad only once a year gets the same rate as the one who uses the service constantly. Not so with the electric utilities—most of them divide their rates into a "demand charge" and an "energy charge." Any customer who uses the service at all has to pay a proportionate charge for the maximum load he may call for at any one time—and the charge for actual use of energy is proportionally reduced, usually being lower for constant use or for use at "off hours" than for intermittent use.

On the railroads, on the contrary, charges are collected only for actual use of transportation service. This doesn't mean, of course, that the "demand" factor is entirely ignored. When goods move in volume from one origin to one destination, shippers can usually get the railroads to establish "commodity rates," which are considerably lower than the standard class rates, and which reflect the economies attendant upon movement in dependable volume. But "commodity rates" are only an approximation to the straightforward recognition of "demand" and "energy" factors which characterizes electric rates. Like all approximations and averages, they don't hit the bull's-eye as often as a device aimed directly at it.

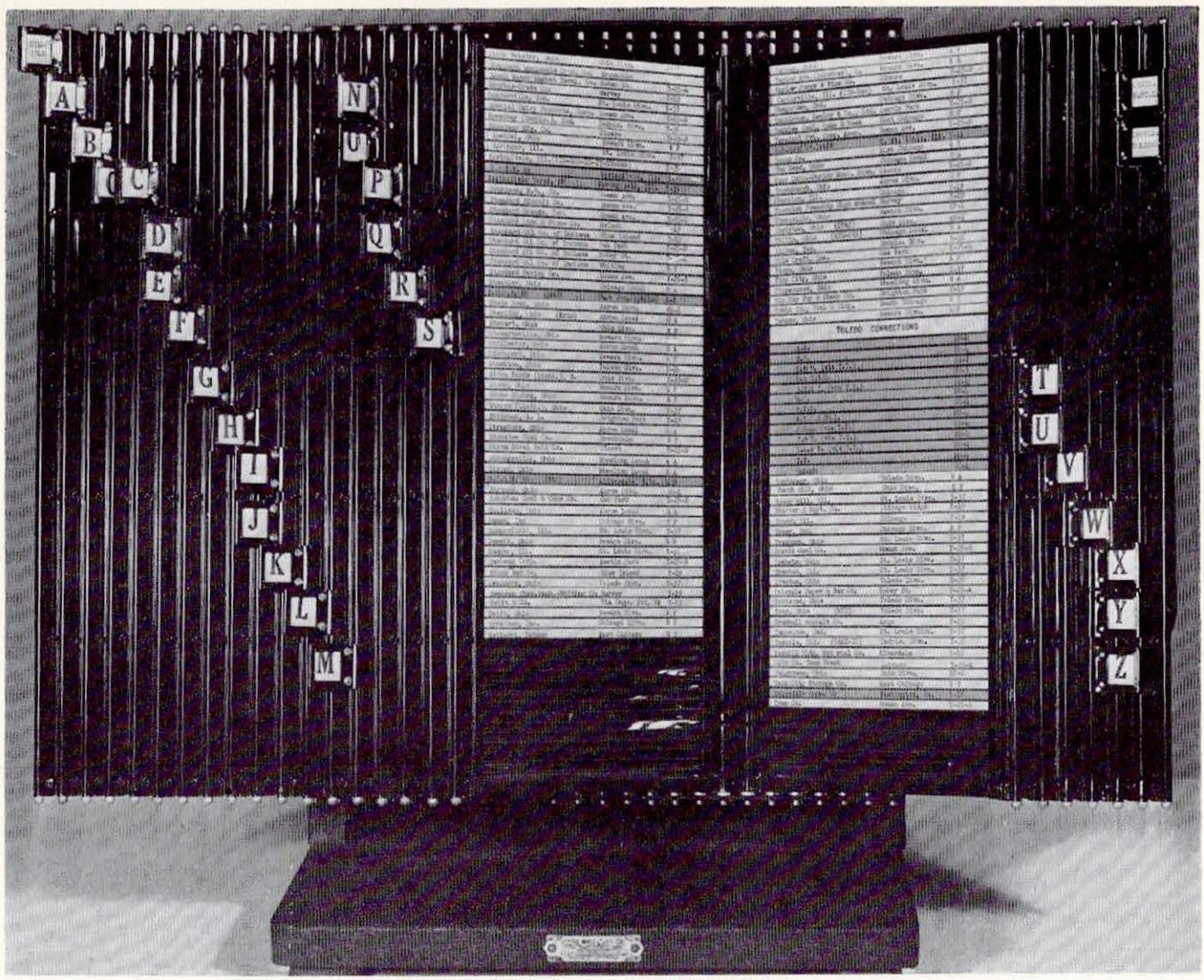
For example, "commodity rates" may be established to reflect dependable movement of some product from A to B by *some* producers, but all producers making this movement—including those who use railroad service only in emergencies—may take advantage of these reduced rates, which only the steady railroad customers have made possible. Since railroad rates are made to fit only average conditions, no customer has the rate incentive that most purchasers of electric energy have to make a *maximum use* of railroad facilities. Quite likely, some railroad rate men would be hesitant about introducing "incentive" rates for individual shippers, for fear that such rates would merely serve to reduce charges on traffic already moving exclusively, or almost so, by rail.

Such questions as these cannot be answered, either yes or no, by guessing. They can only be answered by gathering a lot of information about traffic—especially *that not now moving by rail*—and feeding it into a calculating machine, and examining the answers that come out. The utility approach is, economically, just as respectable as the railroad approach. If it could be shown by actual calculation as likely to produce larger net revenues than present railroad rates do, then there should be no insuperable obstacles toward the introduction of such rates.

As long as the utilities are doing, relatively, so much better than the railroads "under substantially the same circumstances and conditions," except for the radically different approach of the two industries to rates, surely some very extended and objective study by the railroads of the possible application to the railroads of the utility theory of rate-making ought to be undertaken.

Utility rate-making has prevented the "isolated electric plant" (the parallel of private and contract trucking in the field of transportation) from becoming the menace to mass-produced power that the individual highway vehicle has become to mass-produced transportation. Technologically, what advantage does private transportation have over the railroad that the small automatic power plant does not have over mass-produced electricity?

Yet small-unit transportation flourishes while mass-production of electric energy more than holds its own. Does the explanation lie in rates? If not, where does it lie?



Visible panels help Baltimore & Ohio yard forces to tell quickly classification to which a car belongs, so it will get on the right track in a yard and in the right place on the right train.

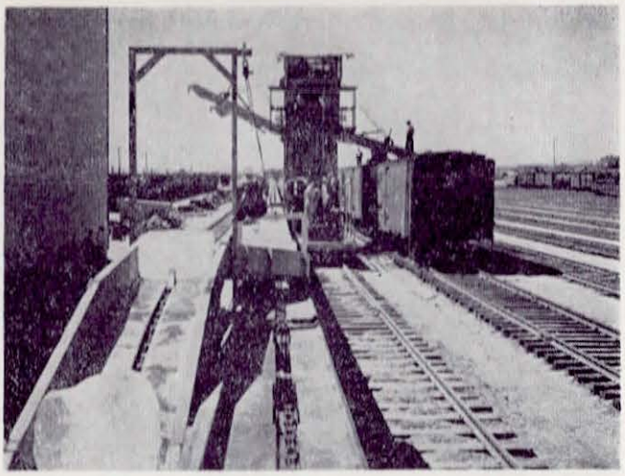
How Railroads Are Improving Yard and Terminal Operations

The year just past was—and 1953 promises to be—one of the biggest years in railroad history in the field of improving their ability to handle cars in and through yards and terminals with dispatch. From Canada to the Gulf, and from Maine to the Pacific Coast, practically every road is "getting into the act." Projected improvements range in cost from a few thousand dollars to the $34 million to be spent by the Pennsylvania in building a new yard and other facilities at Conway, Pa., near Pittsburgh.

There can be no doubt that the diesel-electric locomotive, which made possible longer-than-ever freight trains, helped to accentuate the need for enlarged and improved yards. Also, industry, which used to want dependability more than speed in transportation, increasingly is asking for both speed and predictability, and it turns to highway and even air carriers for such service if the railroads fail to deliver it. These two factors, plus the need for maximum economy in handling, and the necessity for stretching the car supply by reducing transit time, have made it absolutely necessary that the railroads cut the number of hours spent by freight cars in yards and terminals.

During 1952 a number of railroads did something about helping local forces to find ways of getting cars through yards and terminals more quickly and at reduced cost. Because local forces are so busy facing their day-to-day problems, managements of roads such as the

At its yards in Springfield, Mo., the Frisco has equipped car inspectors with portable radio transmitters to expedite emergency messages.



At the D&RGW North yard at Denver, two trains of 85 cars each can be iced simultaneously. The traveling icing machine does the work.

Southern, Pennsylvania, Union, Grand Trunk Western, St. Louis-San Francisco, and Canadian National have set up special task forces with the specific function of working with local staffs in planning improvements or instituting changes in practices.

Last year both the Baltimore & Ohio and the New York, New Haven & Hartford experimented with the use of television in terminal and yard work. The B&O will continue its experiments during 1953, while the New Haven expects at some time in the near future to make a TV installation at its busy New Haven terminal. Cameras will be set up so that a tower operator, responsible by remote control for the operation of several interlockings which he cannot see, will be able to observe what is going on in each of the interlocking areas.

Below is a compilation, by railroads, of just a few major steps these carriers have taken or expect to take in the immediate future, to speed up the handling of freight cars through yards and terminals. As funds become available more projects will be added to this incomplete but representative list of service improvements.

HIGH SPOTS IN YARD AND TERMINAL IMPROVEMENT PROGRAMS — 1952-1953

1952—Many new—or rebuilt—yards go into service, with others in various stages of completion.

Good communication facilities (paging and talk back loudspeakers, two-way radio between yard office and engine crews, Teletype for transmitting and receiving advance consists, pneumatic tubes for sending papers from one end of a yard to the other, etc.) increasingly recognized as a main cog in efficient yard and terminal operation.

Many yards were provided with longer tracks to eliminate doubling in making up or breaking up today's long trains.

1953—Beginning or completion of multimillion dollar yard projects, including among others:

R.R.	Terminal	Estimated Cost
D&RGW	Grand Junction, Colo.	$ 4,000,000
L&N	Nashville, Tenn.	14,000,000
N&W	Bluefield, W. Va.	2,100,000
PRR	Conway, Pa.	34,000,000
SAL	Hamlet, N. C.	7,000,000

Increasing attention will be paid to means of getting bad order (loaded) cars moving at the earliest possible moment.

St. Louis Southwestern.—The Cotton Belt long has been an exponent of preblocking of trains in initial terminals, so that, other than picking up or setting out at intermediate terminals, no switching work will be required en route. A committee composed of an assistant superintendent, a trainmaster and a mechanical department representative, checks the operation at each terminal quarterly to determine whether or not any improvement in handling can be made. This committee also administers the Cotton Belt's careful switching program.

Southern.—In February of last year the Southern established the office of assistant vice-president, yards and terminals. This officer and his staff (three terminal supervisors, six transportation inspectors, and an office force) spend all their time trying to improve the railroad's yard and terminal operations. They check the standing time of cars in yards, time required to handle bad order cars, etc. Studies are made to see if cars are classified properly so as to prevent delays at other terminals through which the cars will move. These studies have resulted in several classification changes.

Western Maryland.—Recently added trackage in the receiving yard at Port Covington (Baltimore), Md., has practically eliminated holding tonnage trains on main track awaiting yarding, thus expediting breaking up of trains for delivery to interchange or for placement for export movement. At Cumberland, main tracks were removed from the center of the yard and placed on the outer edge, eliminating delays in classifying trains. At Hagerstown, Md., new tracks and other changes have eliminated a lot of doubling and other interference with yard and main track movements.

Lehigh & New England.—All cars held more than 24 hours at any given place are reported to the superintendent of car service, whose duty it is then to expedite their handling. Additional tracks and a change in the location of crossovers in the Tadmer (Nazareth, Pa.) yard are helping improve service.

Canadian Pacific.—In addition to the benefits derived from its new large and modern yard adjoining Montreal, the CPR has about completed a network of communications lines which will enable it to tie in closely by Teletype most of the major points on the railroad.

Nashville, Chattanooga & St. Louis.—Early in 1954 this road expects to be using the new Radnor yard (jointly with the L&N) at Nashville. Once it gets into the new yard, the NC&SL will be able to abandon its congested yard situ-

Two-way radio connecting yard office and diesel switcher is used by Union Pacific crew. Radio helps expedite yard operations on many railroads.

Automatic switching and retarder speed control in the Air Line yard of the Milwaukee at Milwaukee, Wis., is designed to classify 100 cars per hour.

ated in downtown Nashville. Much expensive duplication of effort and time consuming doubling, which now is necessary, will be eliminated. In 1952, at Atlanta, this road rearranged the yard track layout, securing a reduction in delays to trains getting into and out of the yard.

Southern Pacific.—On this line, smooth functioning of yards and terminals is the responsibility of an assistant general manager. Each of the SP's larger terminals has a staff whose sole function is the work of the terminal.

At Roseville, Cal., the rebuilt and enlarged push-button hump yard, will do much classification formerly done less efficiently at other yards. The SP also is building a by-pass line, running from the Los Angeles harbor area to Puente, about 15 miles east, by-passing the busy industrial district and relieving congestion.

Clinchfield.—At Erwin, Tenn., has increased the length of two yard tracks so that a full train may be received or dispatched without doubling. At Erwin, Johnson City and Kingsport has equipped its switch engines with two-way radio which has helped to expedite operations at these points. Facilities at Kingsport, Tenn., are being enlarged to accommodate growing business there.

New York Central.—At Rockport (Cleveland) yard the NYC has put in new tracks and lengthened others to take care of increased business, and installed a new 72-ft., 300-ton capacity scale for faster weighing. Blue Island (Chicago) yard on the Indiana Harbor Belt, North yard at Detroit, the Pittsburgh & Lake Erie's yard at McKee's Rocks (Pittsburgh), Pa., and DeWitt yard at Syracuse, N.Y., all have been or are in the process of being improved. At DeWitt, 150-car trains can now be assembled without doubling. Before the recent changes, the yard lead was blocked at times by doubling, bottlenecking switching operations.

Atlantic Coast Line.—At the south end of the Florence, S.C., terminal freight trains used to be subject to long delays getting into or out of the yard, because of conflicting moves of passenger trains. This has been corrected by a remote-controlled double crossover between the two main lines, and signaling both tracks for movements in both directions. Soon all switch engines will be radio-equipped, except possibly at points where only one engine works. Yards at Rocky Mount, N.C., and Lakeland, Fla., now being expanded and other yard expansions are authorized but not begun.

New York, New Haven & Hartford.—Radio and radar on this road's tugboats in New York harbor provide for more efficient dispatchment of floating equipment and enable the New Haven to operate under adverse conditions, such as fogs. Switch engines are equipped with "Servis-recorders," which enable supervisors to tell how much time an engine was moving or standing, a valuable aid in checking the work done by a switching crew and a help to yardmasters in planning operations.

The New Haven plans to rearrange tracks in its yards at New Haven; to make completely automatic the alining of switches in hump yards at Hartford, Conn., and Providence, R.I.; to construct new terminal facilities for handling of meat and perishables at Boston; and to install two-way radio communication between yard offices and switch engines used at South Boston and New York.

Erie.—The Erie has improved the grades on its switching leads and yard tracks at Brier Hill yard (Youngstown, Ohio). This will speed trains into and out of the yard. Also this road is spending about $840,000 on a new westbound yard at Hornell, N.Y., to eliminate doubling trains and speed switching. In the past several years the Erie has spent about $141,000 to equip 31 switch engines and its tugboats in New York harbor with radio. Switchers at Hammond, Ind., Marion, Ohio, Jamestown, N.Y., and Buffalo are so equipped. Four switchers at Cleveland will be added to this list in 1953.

Union Pacific.—This road is in process of equipping 36 more diesel switchers with two-way radio. A Teletype-IBM punch card system has been placed in operation and between eight major terminals with six more points scheduled to have similar equipment installed. In addition to faster and better records, the combination is reducing the terminal delays to trains. Additions to trackage in several yards are reducing doubling and switching moves, so speeding movement of freight.

Illinois Central.—Beginning in 1949, and completed in December 1952, the IC completely modernized its Markham yard (Chicago). In addition to new retarders and a push-button automatic (switch) route control machine, locomotives used in hump service or industrial switching and interchange service have been equipped with radio. Better floodlighting, including sodium vapor lights for use in stormy or foggy weather, also have helped speed up operations at Markham. Mays yard, built at New Orleans during the war, and the modernization of Johnston yard at Memphis, Tenn., are also parts of the IC's major yard modernization program.

Duluth, South Shore & Atlantic.—At Sault Ste. Marie, Mich., yard and terminal facilities are taxed to capacity during winter months when much Canadian commerce comes into the U.S. through that gateway. A terminal trainmaster has been put in charge there with jurisdiction on both sides of the St. Mary's river. Also, more trackage on the Michigan side, a new repair track, floodlighting of the yard, a remodelled yard office affording yard employees and customs men a better set-up for work, have enabled the railroad to handle the traffic satisfactorily. The DSS&A is now making tests of two-way radio in yard operation; and of

This yard tower, like those in many other yards, is topped with floodlights which help to speed night operations and make them safer.

head-end to rear-end radio for use on its road freight trains.

Denver & Rio Grande Western.—The big news on this road is the building of the new $4 million retarder yard at Grand Junction, Colo. The new yard will have two-way speakers and paging systems. Radio will be used to contact switch engines working at distances up to 13 miles. All through main line freight will be classified at Grand Junction. This will make it possible to reduce switching delays at both Pueblo and Denver.

Canadian National.—This road is "covering" its system with a Teletype network to expedite the handling of advance consists and other important messages. Also it has formed a yard and terminal group to aid local forces in planning yard and terminal improvements. The CNR is building a large new classification yard in the Cote de Liesse area of Montreal, because its Turcot yard has been found inadequate for the increased business.

Pittsburgh & West Virginia.—This road has installed C.T.C. on its entire main line and two branch lines, facilitating better spacing of trains arriving at and departing from Rook yard (Pittsburgh), thus reducing congestion and delays.

Norfolk & Western.—The N&W is improving its yards at Bluefield, W. Va. Tracks will hold 125-139 cars, which will eliminate a lot of doubling and reduce considerably delay on eastbound loaded movement. In March 1952 the road began operation of a new car retarder yard at Lamberts Point (Norfolk), Va., for separation, by classifications, of transshipment coal moving into Norfolk in large volumes for delivery to vessels. This replaced a less efficient flat yard operation.

Missouri-Kansas-Texas.—Soon to be completed is the new "Eureka" yard at Houston. Engines will be equipped with two-way radio so crews can keep in touch with the yardmaster. Such an installation was made at Dallas some time ago, making faster and more economical operation possible.

St. Louis-San Francisco.—Yard-engine to yard-office two-way radio has been installed in yards at St. Louis, Mo., and Springfield, Tulsa, Okla., and Oklahoma City, Memphis, Tenn., and Fort Worth Tex. and soon will be "in" at Kansas City. It saves a lot of delays to switch engines and a lot of time for switch crews and yard office forces. Yard expansions at Birmingham Ala., Enid, Okla., and Oklahoma City, and Sherman, Tex., in the last few years have paid off. Expansion of facilities at Kansas City, Memphis, Tenn., and Wichita, Kan., either is under way or has been authorized. By 1954 Teletype will connect the line's 11 major terminals. Tied in with this will be a IBM punch card car record. Together, these devices are expected to speed up the handling of yard and train reports and reduce delays.

Louisville & Nashville.—In January 1952 this road completed a $1 million extension of its yard at Louisville, Ky. Delays from doubling are eliminated and there is no interference with yard operations when getting a road freight on its way. In April 12 yard engines at Louisville and Birmingham, Ala., were equipped with radio. In October Teletype was installed connecting yards at E. St. Louis, Ill., Evansville, Ind., Louisville, Cincinnati, Nashville and Birmingham. Advance consists of trains received at these yards reduces delay in the handling of the trains. Other major terminals are to be added to the Teletype network. To be completed early in 1954 is a $14 million new yard at Nashville which will be used jointly by the L&N and the Nashville, Chattanooga & St. Louis. The L&N estimates that the new yard will save an average of more than an hour per car on traffic going to or through Nashville.

Bangor & Aroostook.—This road has equipped switch engines at all of its larger yards with locomotive-to-yard-office radio. An additional make-up track has been provided at Northern Maine Jct., Me., which has eliminated delays in getting road freights on their way. Under consideration is a joint yard at Northern Maine Jct., with the Maine Central, which is expected to produce economies and improve transit time on cars from northern and eastern Maine to the West.

Lehigh Valley.—Reports of cars on hand for more than 24 hours at any terminal go to superintendents, who personally investigate such delays and set up arrangements to avoid similar occurrences.

Seaboard Air Line.—The SAL has two officers whose only duty is coordination of yard functions. In the last couple of years, among other things, the Seaboard has provided at a number of its yards, such as Savannah, Ga., and Jacksonville, Fla., improved facilities for car repairs and cleaning, in order to get cars back "in circulation" as quickly as possible. At eight of its main yards the SAL has two-way radio communication between yard office and switch engines. At nine of its main points the Seaboard has either built new yards or has expanded facilities. At Hamlet, N.C., Savannah, Ga., and Tampa, Fla., yard clerks use "walkie-talkie" radios when checking the yards.

Kansas City Southern-Louisiana & Arkansas.—At De Queen, Ark., rearranging some tracks and new construction have resulted in better accommodation for long

freight trains and better facilities for making up and breaking up today's long trains.

Grand Trunk Western.—A committee on terminal performance was organized in August 1952. Its present membership consists of a superintendent, an engineering department man and a statistician, but shortly there will be seven men on the committee. The group's first studies will be at such points as Detroit, Battle Creek and Durand, Mich.

Toronto, Hamilton & Buffalo.—At the east end of its Aberdeen yard, at Hamilton, Ont., a new three-track bridge across a main street of the town will replace a single-track bridge. This will improve handling of trains.

Chicago, Milwaukee, St. Paul & Pacific.—In 1952 this road completed rehabilitation of its Air Line and Muskege yards at Milwaukee, Wis., at a cost of about $3 million. Also it installed radios on many switch engines, enabling crews to talk with yard office, etc. In 1953 will reconstruct its eastbound yard at Bensenville, Ill. Improvements made there will increase efficiency in moving cars to eastern connections via the Terre Haute division gateways as well as to connections at Chicago.

Chicago, Indianapolis & Louisville.—During the past year the Monon has improved trackage facilities through rearrangement, new construction and extensions at: Michigan City, Ind., Hammond, and elsewhere. The road has established a permanent yard and terminal rehabilitation committee, headed by the vice-president-traffic, which includes men from the operating, mechanical, accounting, development and purchasing departments.

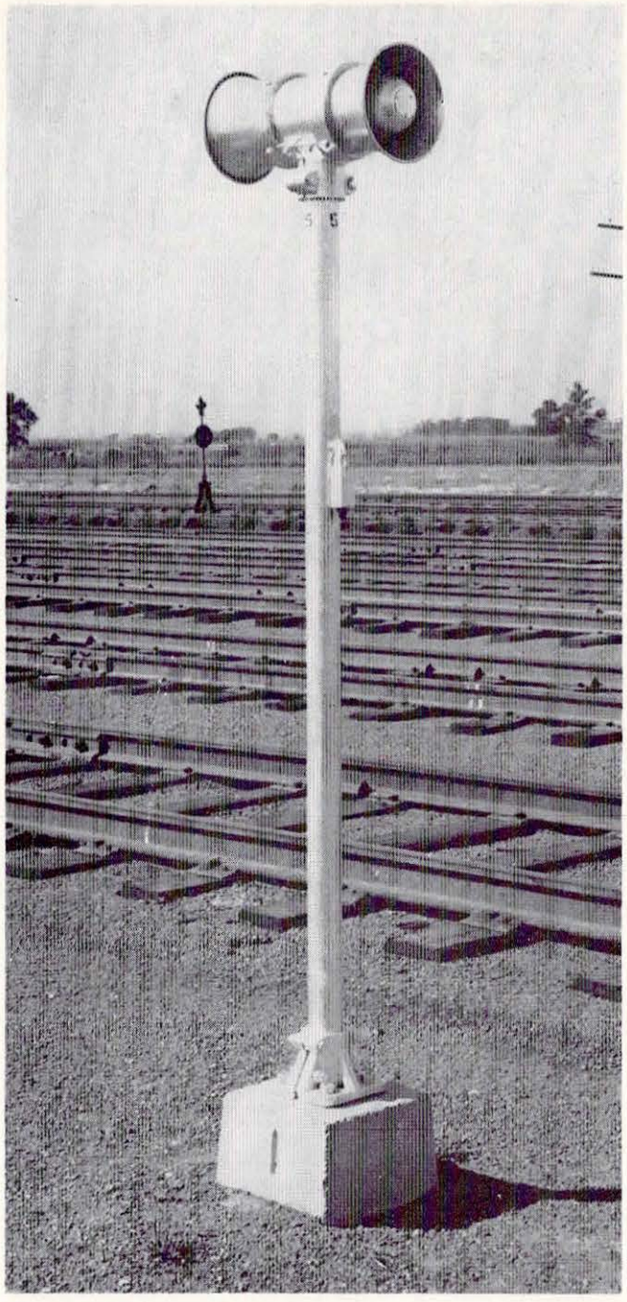
Central of New Jersey.—This road recently opened a rebuilt westbound yard at Allentown, Pa., which is substantially reducing transit time on westbound freight, especially cars "bad ordered" at Allentown. Under the new procedure "cripples" are shunted into one of two repair tracks until the track is full or a cut-off time is reached. Then the "blue flag" goes up on that track, and car repair forces go to work. In the meantime the other track is receiving further bad orders. As soon as repair work is done on one track, the track is "pulled" and the cars go on their way, and carmen start working cars on the other track.

Central of Georgia.—At its Columbus, Ga., and Savannah yards has supplied two more tracks with compressed air line, enabling car inspectors to save time in checking trains, etc. At Macon three long tracks have been provided for handling long trains, eliminating time-consuming doubling. Also at Columbus, two crossovers built at the west end of the yard enable east-bound freights to head into the yard without interrupting switch engines at work there. In the planning stage are extension of yard tracks at Macon, Columbus and Albany, and a new yard at Chattanooga.

Atchison, Topeka & Santa Fe.—This road frequently checks traffic volume by direction and destination areas in order to make through trains which will by-pass one or more intermediate terminals. This reduces switching, and damage resulting therefrom, and delay. Track extensions and other improvements are under way in yards at Belen, N.M., Los Angeles, Cal., and Bakersfield, which will reduce terminal detention.

Pennsylvania.—This road recently announced plans, to take three years to complete, for a new $34 million yard (and supporting facilities) at Conway, Pa., just outside of Pittsburgh. The 85 tracks and two completely automatic hump operations will enable the PRR to handle 8,000 cars per day through the yard. Once construction is completed, the railroad expects to be able to take 2 to 12 hours off some of its freight schedules.

Gulf, Mobile & Ohio.—At Chicago, Bloomington, Ill., and E. St. Louis, a 25 per cent increase in yard capacity has been realized through a combination of floodlighting of yards; communication towers from which yard operations are directed; rearrangement of lead tracks and building new tracks; and installation of convenient crossovers. Traffic is moving through these terminals more expeditiously than it did before these changes. At Mobile, Ala., Tuscaloosa, Meridian, Miss., and Jackson, Tenn., yard office-to-switch engine radio is making for better yard operations.



Paging and talk-back loudspeakers are being put into more and more yards because they have proved of real use to yard crews and office forces.

New York, Chicago & St. Louis.—In the last year or so this road has completed improvements to its terminals in Chicago and Fort Wayne, Ind. At Bellevue, Ohio, additional tracks are being added to the eastbound yard to permit better classification of trains. Also, repair track facilities have been relocated to permit quicker placing, repairing and forwarding of cars bad ordered at that point. Additional tracks also are being built on the Wheeling & Lake Erie District side to speed interchanging.

Great Northern.—This road recently moved a scale from one terminal to a point 100 miles away on a branch line, reducing the amount of weighing that has to be done at a busy terminal, and eliminating much switching. A new hump yard, a pneumatic tube system for handling waybills and other documents, and two-way yard office-to-engine crew radio are currently under consideration.

The shippers' panel agreed that government subsidies should be reimbursed by user charges. Left to right: Luth, Gould-National; Ott, Kraft Foods (speaking); MacArthur, Pillsbury (chairman); and DeGroat, Schlitz.

Everybody in the "Hot Seat"

Chamber of Commerce panels at Minneapolis a good example of public interest in subsidy and regulation issues—Open discussion narrows issues and highlights "toughies" like Fourth Section repeal

The issues of modernization of public policies as to transportation subsidies and regulation have definitely caught hold beyond the classroom and the congressional hearing room and been brought into the local forum, where carrier and shipper representatives sit exposed to a merciless barrage of questions from an aroused public. An excellent case in point was the "regional transportation conference" sponsored in Minneapolis on December 10 and 11, 1952, by the Chamber of Commerce of the United States, with the cooperation of the local chamber and the Minneapolis Traffic Association.

With the theme "Keep Transportation Healthy," the conference attracted almost 200 members of the "public" on each of the two days. Particularly noteworthy was the fact that most of the members of the national chamber's 38-man Transportation & Communications Committee were present and took careful note of what was said, both from the rostrum and from the floor, for "background" in their deliberations on policy which started the following day (December 12) at the breakfast hour of 7:45 a.m.

To make their views known before the committee hammered down proposed policy on the Fourth Section (long-and-short haul clause), there journeyed to Minneapolis from Intermountain territory two opponents of repeal. L. W. Markham, managing secretary of the Spokane C. of C., called the restriction now imposed on railroads "the Old Testament of the Intermountain area," and declared that, despite arguments that competitive conditions made the rule outmoded, "you don't like to stand up and get shot at again." He took a dim view of the point made by panel speakers that other sections of the Interstate Commerce Act give ample protection from discrimination in rate-making. Said he: "We don't want relief; we want protection. We fear that, if it is otherwise, the patient may be dead before the remedy can be administered."

Dallas L. Cook, director of traffic for the Denver C. of C., was less doctrinaire; he admitted he'd changed his opinion "somewhat" since attending the conference, and that A. H. Schwietert, chairman of the Special Committee on Transportation Outlook & Policy of the National Industrial Traffic League—a speaker at the conference—had given him "a changed idea" about reliance on sections other than the fourth. He said he would go home satisfied not to oppose fourth section repeal further *if* somebody in the room would show him who—in the absence of the Fourth Section and its imposition of "burden of proof" on the carriers—would protect "the little shipper." Admittedly it was costly for the carriers to apply for specific relief from Fourth Section, but repeal of the latter would bring even greater costs to bear on "the little fellow."

To this "snapper," Earl B. Smith, vice-president of

The carriers' panel agreed to disagree on the matter of "Is There Too Much Transport Regulation?" The railroads and pipe lines said there was; motor trucks, buses, inland waterways and air lines said there wasn't; Great Lakes carriers said they weren't regulated and hoped they never would be. Truck and barge representatives contended for regulation to "protect" them from the railroads. Left to right: *Lake Carriers*, Boland, of Boland & Cornelius; *Air Lines*, Carmichael, of Capital Airlines; *Railroads*, MacNamara, of Soo Line (speaking); *Buses*, Sundstrom, of Pennsylvania Greyhound; *Motor Trucks*, Babcock, of Dakota Transfer & Storage; and *Pipelines*, Andress, of Service Pipe Line Company. Missing from the photo are Innis, of John I. Hay Company (barge operators), and Moderator Smith.

General Mills, Inc., posed another: "Who represents the 'little man' in Fourth Section applications at present?" And Mr. Schwietert rose to point out: "There is a general misunderstanding that the substantive law under Section 4 is different than under Sections 2 or 3 of the act." The facts are otherwise, he said. The ultimate results for the shipper under Sections 2 and 3 would be the same as under Section 4—which was enacted to meet a special situation, before "teeth" had been put into other provisions of the act. Under these other sections, the burden of proof rests on the carrier, just as it does under Section 4, and shippers and competing carriers would be protected as amply under the other section as under the long-and-short haul provision.

Following this interchange, George H. Shafer, general traffic manager of Weyerhaueser Sales Company—who was moderating the informal roundtable discussion which wound up the two-day sessions—expressed the hope that Messrs. Cook and Schwietert "would get together some more."

Two panel discussions were the heart of the conference. One constituted the views of three representative shippers on "Federal Aids to Transportation." The other brought forth the views of every important form of transportation on the subject, "Is There Too Much Transport Regulation?" Each of them evoked a barrage of questions from the floor, which continued on into the wind-up session presided over by plain-spoken Mr. Shafer.

Moderated by Mr. Smith, the carrier panel lost no time in isolating the main points of disagreement among the carriers. Also, as expected, it spilled over into the concomitant—though unassigned—topic of subsidies. Representing the motor bus industry, S. R. Sundstrom, president of Pennsylvania Greyhound Lines, declared that there is not too much regulation in the federal field, but that, in the more important field of state regulation, control is too tight.

He applauded a report approved by the National Association of Railroad & Utility Commissioners in November which favored dispatch in handling fare cases and the adoption of "operating ratio" as a more reasonable basis of rates than "return on investment." Said Mr. Sundstrom: "The operating ratio theory of rate base realistically meets the problem of the intercity bus operator. By its nature, our industry operates on a rapid turnover of low capital investment, with a very small margin of profit. If our profits are forecast on the basis of our investment, a small percentage of error in the rate base could bring about bankruptcy."

G. A. MacNamara, president of the Soo Line, presented a full bill of particulars against the present regulatory set-up as it affects the railroads. He attacked both inequality of treatment, as among carriers, and "the growing tendency on the part of regulatory bodies to attempt to manage rather than to regulate; i.e., to invade more and more the field of what should be managerial discretion." Among changes proposed by him were: (1) solution of "regulatory time lag"; (2) change in rule of rate-making, to eliminate consideration of effect of rates on movement of traffic; (3) repeal of Fourth Section; and (4) more freedom in discontinuing "unwarranted" services.

Asked whether he thought the Fourth Section should ever have been enacted, Mr. MacNamara said it was once necessary, but that competitive pressures now make it undesirable. He suffered no embarrassment in admitting that the intention of the railroads *is* to cut rates to meet motor carrier competition—contending that they ought to be in the same competitive position as the motor carriers themselves. Responding to a suggestion that a representative of the I.C.C. sit in on railway wage negotiations, the Soo Line head averred that "we have enough government officials sitting in on wage cases right now."

Fear of what railroads would do to the truckers if

A. H. Schwietert, traffic director of the Chicago Association of Commerce & Industry, explains the policy of the National Industrial Traffic League. Looking on are (left) D. G. Ward, director of transportation of the Mathieson Chemical Corporation, and Evans Nash, chairman of the Chamber's Transportation & Communications Committee.

barriers were reduced was the theme of R. J. Babcock, president of Dakota Transfer & Storage Co., who made it clear he spoke only on behalf of "regular route common carriers." He believes that there is not too much regulation today, and advocated retention and strengthening of controls which discourage "invasion by one carrier of the field of another." He said "the integrity of common carrier rate scales must be protected." He complained that the railroads "charge off" the deficit from their less-carload operations to carload shippers. "No businessman wants to face the competition of a business which does not have to earn a profit." Asked later, "If you were to become a railroad president, would your views on regulation change?", Mr. Babcock thought a long while; then said "no."

J. H. Carmichael, president of Capital Airlines, Inc., warned he could not speak for his industry, because there are as many different opinions about today's regulation as there are members of the industry. As for himself, "We are fortunate in having the Civil Aeronautics Act of 1938; it is a good act. . . . It provides a high degree of latitude. It allows the air carriers to expand without the historical, restrictive regulation under which other carriers must operate." Criticism was reserved for administration of safety regulations on the air lines—which he dubbed "burdensome, inefficient, expensive and impractical"—leaving management almost no responsibility over operating practices. He also feared that federal and state bodies are looking "with fond eyes" on the more burdensome regulations imposed on surface carriers. A sign of the trend lay in the difficulty the air lines are having in seeking to abolish "a purely promotional" tariff granting a reduction of 5 per cent on round trip fares.

Asked by a "non-railroader" if the safety record of the air lines would be as good as it is if they operated in all kinds of weather, Mr. Carmichael replied that, in 1952 thus far, the certified air lines flew 98.3 per cent of flights as scheduled. He doubted whether the railroads have as good an "on time" performance.

Queried on why the certified lines need air mail subsidy, while the "non-skeds" do not, the speaker declared that 11 of the 16 trunk-line carriers are now off the subsidy list, while it is contemplated that the remaining five will be off by July 1953. On the question of a single regulatory body for all forms of transport, the air-line executive said his industry opposes unification, because such a body would impose more onerous restrictions on air transport than it now lives under. After listening to a discussion of railroad passenger deficits, he was prepared to state that the air lines "would be glad to *relieve* the railroads of any of their troubles in this field."

Representing the Great Lakes carriers, John Boland, Jr., partner in Boland & Cornelius, managers, stated that the bulk carriers have been almost entirely unregulated and uncontrolled, even during the war; that the needs of shipping have been met, with the lowest freight rates in the world; and that the carriers don't want any regulation and hope they won't get any. This took about one minute, after which Mr. Boland sat down.

Later, in round table discussion, he said the imposition of user charges would lead to higher rates on lake carriers. But he doubted if such charges could be levied as a practical matter. No single port would want to be the first city to put up a price list.

While he was scheduled to represent the pipe line industry, R. J. Andress, vice-president—traffic, Service Pipe Line Company, actually presented a comprehensive program for modernizing regulation—without particular regard to the pipe lines as carriers. His reason is that pipe lines can't "deadhead" freight for their own account; that his function as a *buyer* of transportation from other carriers is almost as important as his function as a *seller* of transportation.

Of regulation, he said, "There is too much, and, perhaps too little." On the former: "The law, by failing to keep step with technology, is the source of much of today's transportation problem. The grasp of the dead hand of regulation, begun under the abuses of monopoly, has been continued, although technology today offers

the substitute of the dynamic forces of competition." On "too little" regulation: "The too-thin spread of the commission's [I.C.C.] efforts is, to a great extent, the result of inadequate appropriations to staff its present function and practically no slack to permit recruitment and training of new, young personnel for the future."

In the discussion which followed, Mr. Andress stated that he does not believe there is over-regulation of pipe lines themselves, although the companies take "a dim view" of certain parts of the law; e.g. the burden of annual physical revaluation. On Fourth Section repeal, he sided with the railroads, stating that the small shipper is amply protected by competition and the ceiling which private transport places on rates. "I wonder if, in 1952, protection of the small shipper does not lie in economics, rather than in regulation?"

"Protect Us"

"There is not unanimity of opinion in the barge industry regarding the present status of regulation," stated John O. Innis, vice-president, John I. Hay Company, who, like the trucking representative, pleaded for retention of regulations which "protect" his industry from the railroads. While the water carriers opposed being put under regulation back in 1940, he considered it "fruitless" to do anything but assume that regulation is here to stay. It was the view of the certified barge lines that the exemption of bulk carriers from regulation imposed hardships on them; nevertheless any change in the exemptions might produce "a cure worse than the disease."

He strongly advocated retention of existing checks on competition from railroads, particularly with regard to Section 4. "Elimination of the Fourth Section would open the door to pinpoint rate reductions by land carriers between the limited ports served by our industry and would probably accomplish its dissolution faster than by any other means." Later, he "guessed" that it would take the railroads only about 30 days after repeal to put in their reductions, "and we'd be out of business." He also opposed all user-charges on waterways.

Summing up, Moderator Smith—who earlier reviewed the whole history of federal regulation—expressed the personal belief that conditions would improve if (1) present National Transportation Policy were better administered and (2) important changes in the policy itself were effected.

The Shippers Talk

All three shippers on the panel discussing federal aids to transportation agreed that the element of subsidy has an important impact on rates and the financial health of the carriers, and that user charges should be imposed. Two were for eliminating the element of subsidy altogether, while the third would stress the desirability of user charges as reimbursement to the government, rather than as a means of equalizing competitive conditions. All three also emphasized that the subsidy question goes beyond federal aid, into the important public investment by states and local bodies. William T. McArthur, president of the Minneapolis Traffic Association and vice-president of Pillsbury Mills, Inc., was chairman.

Advocating complete elimination of subsidy, Frank L. DeGroat, general traffic manager of the Schlitz Brewing Company, sought to show the end result of government expenditures on the rates paid by shippers. He paired up reports on present and anticipated federal funds for transport aids with a comment by the I.C.C. in Ex Parte 175 regarding the extent to which the tax load on the railroads increases their need for a higher rate. He compared the $200-odd million in the current federal budget for river improvements with the $16 million spent by the Burlington on its new Kansas City short cut. "A similar project on the rivers" would be paid for by taxpayers and would, of course, include a large contribution from the railroads.

L. E. Luth, director of traffic, Gould-National Batteries, Inc., advocated a policy of "little or minimum aids to transport by the federal government." A proper user-charge should be accepted principle—just as is demurrage for use of railroad cars. He said that ancient laws which prohibit tolls on waterways "ought to get the same analysis as the late, unlamented 18th amendment. With full realization that the increased cost will be paid by shippers," he, nevertheless, advocated a more equitable allocation of highway costs, with preference for "an occupation tax" on for-hire, over-the-road carriers.

In later discussion Mr. Luth explained that he favors fees based on the income gained from the use of government facilities, rather than payment related to the physical use of those facilities. Asked when he expects the user-charge problem to be solved, he replied: "I should live so long. But I do know it will never be solved if all we do is sit here and gab about it."

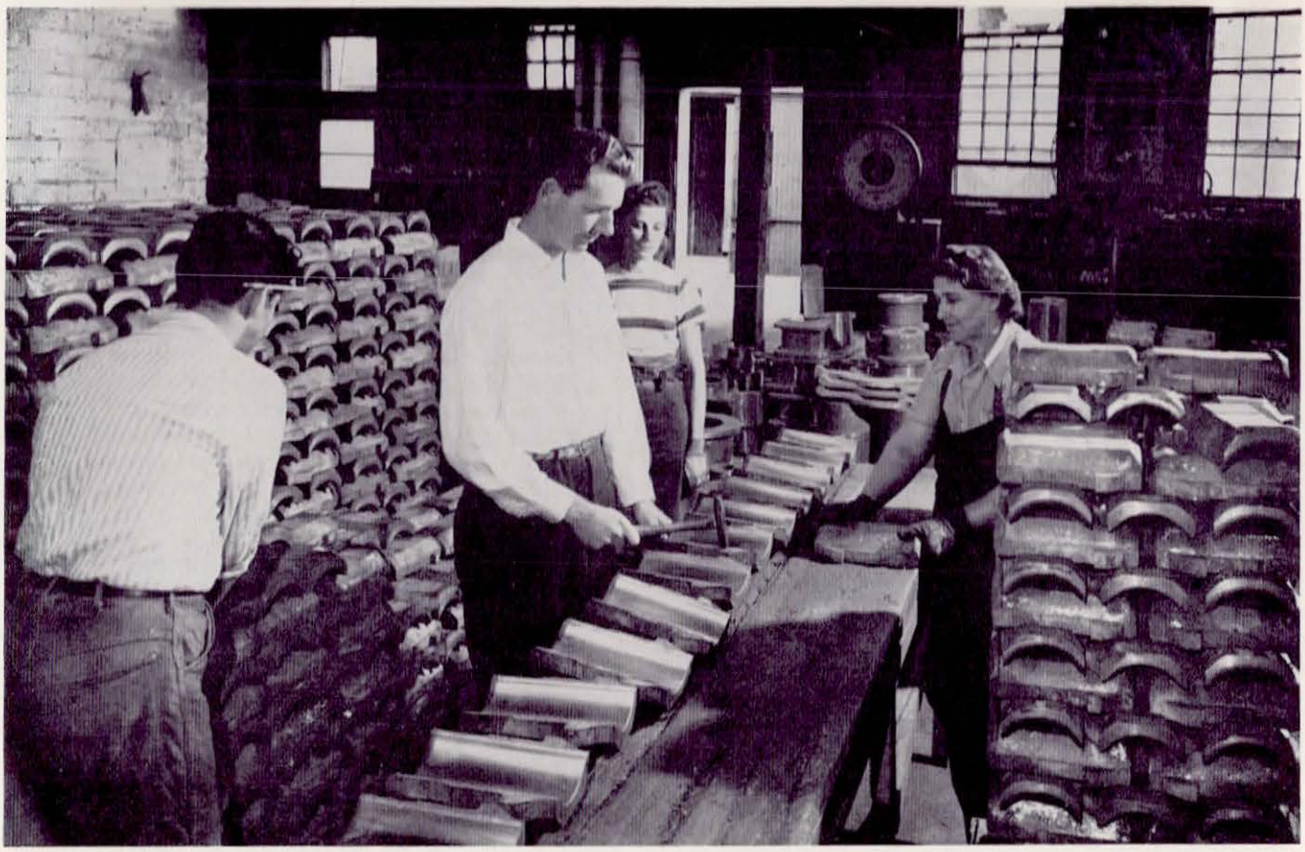
William H. Ott, general traffic manager, Kraft Foods Company, concentrated attention on the difficulties in assessing user-charges. The concept of "aids to transportation," he said, should include outright grants, operation of facilities and furnishing of service—not publicly owned facilities alone. Also, the subject cannot be limited to federal funds because the most important aids are rendered by state units (e.g. highways). In arguments, he claimed, the parties "are not necessarily talking about the same thing when they use the same words." There is a vagueness about "beneficiaries," as contrasted with "users," for example.

The speaker asserted that user-charges will "alleviate" inequality among the carriers, but not wholly eliminate it. Other factors would persist to handicap some carriers. In this connection, he opposed any use of charges to equalize competitive conditions; their purpose should be to reimburse the government for its expenditures on facilities which only public bodies can provide.

Even though all forms of carriers, except waterways, have agreed on the principle of user-charges, "we have just arrived at the point of biggest disagreement"—the proportion of compensation to be paid by the various beneficiaries. He claimed this problem to be one "beyond mere mathematics"—a subject for legislative action. Mr. Ott disagreed with Mr. Luth's proposal for charges based on profit, pointing out that they cannot be applied against private carriage, and discriminate against for-hire carriers. In illustration, he pointed to the California 3 per cent gross receipts tax as the only existing highway use tax based on earnings, and which is proving unworkable.

Formal talks at the sessions included "The Washington Scene," by Harold F. Hammond, manager, Transportation & Communication Department, C. of C. of the U.S.; "Transportation Issues in 1953," by D. G. Ward, director of transportation, Mathieson Chemical Corporation; "The Role of the U. S. Department of Commerce in Transportation," by J. G. Scott, Under Secretary of Commerce for Transportation; and a review of the N.I.T. League's policies, by Mr. Schwietert.

Evans A. Nash, chairman of the T.&C. Committee, presided. Panel Moderator Shafer keynoted the intent of the meeting with his remark that the session might be the last opportunity the public would have to express its views before omnibus transport legislation is introduced in the 83rd Congress.



After final inspection, correct piling and careful handling from the manufacturer to the railroad store and thence to the journal box are important first steps in successful performance of solid journal bearings.

The Case for the Solid Journal Bearing

How associated parts affect performance—What adherence to maintenance rules will do—Where the manufacturer comes in

The fact that the solid journal bearing can and, indeed, does frequently operate in freight service under adverse conditions, instead of enhancing its reputation for trustworthiness, has only served as an incentive to permitting these conditions to deteriorate until eventually a point is reached where a poor performance record is obtained. This point was reached long ago, and the present hot-box conditions are but its manifestations." With this premise James G. Dick, chief chemist and metallurgist of Canadian Bronze Company, Montreal, put before a recent meeting of the Canadian Railway Club at Montreal his views, as a proponent of the plain bearing, in the present intensive effort to find a solution for the hot-box problem.

In articles stressing the yearly-costs associated with hot-box delays these figures have in some cases been derived reasonably, Mr. Dick said, but in others, in his opinion, "the picture has been distorted in order to prove some specific point or other and the calculations are not only worthless but positively misleading. Even where these costs have been properly derived, however, they are of significant proportions. Some attempt should be made to investigate thoroughly, and from an unbiased point of view, the possibility that an increased yearly expenditure to improve journal-bearing operating conditions would result in a yearly saving in delay costs far exceeding the expenditure involved.

"That improvements can be made is evidenced many times over in instances where tests have been conducted to determine the efficiency on the road of a new type of oil, a new grade of waste, or a better system of sealing the front and back openings of the box. Where such tests are conducted care is taken to insure that all conditions are normal; that a good box roof contour, absence of wear on inner edge of dust-guard well, new dust guards, etc., exist before the test is initiated.

"The packing in such boxes is adjusted properly at all service points and care is taken to see that the details of Rule 66 are adhered to. No startling innovations—just attention to the details of good practice. In such instances a hot-box very rarely occurs and the care taken is justified by the results secured. The means to a

Lubrication and Maintenance

"Lubrication of the solid journal bearing in service always has been accomplished largely by the waste-pack method. Under reasonably good conditions, the waste pack will provide adequate lubrication of the bearing. Such conditions frequently do not exist, however. There are many instances where the solid bearing must function with but border-line lubrication."

better solid bearing performance obviously exist. They only await the will to apply them and the determination to succeed."

Mr. Dick insisted that the journal bearing, particularly in freight-car service, must absorb more continuous punishment and more rigorous extremes of operating conditions than any other generally similar bearing type. "Its very construction reflects the severity of the conditions under which it is often called upon to perform."

He described the basic function of the bronze back as the support of the relatively low-strength babbitt-metal wearing surface It is also functional in sustaining the wear and absorbing the shocks attendant upon the movement of the bearing, during normal running, car-to-car impact and the application of the brakes, against a steel wedge and steel box parts. In addition to this, it must take care of all wear and stress conditions entailed by the restriction of the lateral movements of the car and its related parts, and by the control of the forces underlying these lateral movements.

"The babbitt-metal wearing surface is formed from a comparatively plastic material," Mr. Dick explained. "It is this plasticity that permits the solid journal bearing to perform satisfactorily under the most severe operating conditions. It is called upon to sustain the continuous application of the normal operating load at varying speeds, while developing a minimum of frictional heat. When applied to journals of various diameters within the maximum and minimum limits, it must be capable of deforming plastically, without cracking or breaking, until it provides an area of contact with the journal adequate to the support of the load involved. In addition to this, the babbitt lining must absorb without fatigue failure the cyclic compressive stresses and flexing stresses that are superimposed on the normal load by the pounding action characteristic of the operation. With all this, the wearing surface must perform without scoring the journal or causing excessive journal wear."

Effect of Worn Journal-Box Parts

"The load which must ultimately be carried by the bearing is applied by the box roof to the wedge and from the wedge to the bearing back," Mr. Dick went on to say. "The wedge and the box roof must contact each other in a manner permitting free movement of the parts in order to maintain the load application along a vertical axis. Where the box roof has become worn and concave the load application may cease to be properly vertical since a concavity in the box roof will restrict wedge movement. Unequal load distributions initiated as a result of this condition cause lubrication failure and bearing lining distortion.

"The effect introduced by a wedge that does not display the proper convexity at its point of contact with the box roof is very similar and causes difficulties of an identical nature. Obviously, where both box roof contour and upper wedge contour are defective, the adverse effects will be correspondingly augmented.

"The wedge may also be found to be worn at its points of contact with the back of the bearing and, where this situation exists, it can cause at least a partial application of the load to the sides of the bearing. A pinching action of this type results in high stress concentrations along the babbitt surfaces immediately adjacent to the oil grooves, and lining deformation with lubrication failure and temperature rise may occur at these locations."

With the conventional freight-car truck frame, vertical and lateral shocks occurring during car movement are largely absorbed by the bearing, the speaker remarked. Horizontal shocks from car-to-car impacts during humping and on the road also must be absorbed by the bearing. "Where these shocks are not exaggerated by improper wedge and box roof conditions, and where impact speeds are reasonable, the performance of the bearing is not seriously affected.

"The type of brake used on freight-car trucks gives rise to conditions that have a direct influence on the ability of the solid bearing to perform in conjunction with the truck frame and associated parts. The braking force is applied to each wheel through a single brake shoe and, therefore, in one direction only. The application of the brakes will cause the forcing apart of the two pairs of wheels and their journals. This action causes movement of the journals within their boxes and a shift in the position of each journal in its bearing. On heavy brake applications an examination of the interior of the journal box during the application will indicate that the bearing, on that side of the journal nearest the brake, has lifted from the journal surface as a result of journal movement during braking. Separation of this nature provides focal points for waste grabs and, therefore, hot-boxes.

"A journal movement of this nature is, in most cases, accompanied by contact of the journal with the inner edge of the dust-guard well furthest from the brake. Repeated contact in this manner results eventually in excessive wear of the well and permits increased journal movement and exaggerated momentary decentering of the bearing on the journal during braking. That this action occurs very frequently is clearly exemplified by even a casual examination of the journal bearings removed from freight-car service. A significantly high percentage show babbitt deformation along one side."

With the clasp brake, this movement of the journal does not take place, he said, since equal braking forces are applied at opposite points on the wheels.

"Foreign matter may enter the box past the box lid or past the dust guard," the speaker remarked. "The design, fit and maintenance of the lid should allow complete sealing of the front opening of the box during car operation. Too often, however, this is not the case and the flapping and banging of poorly secured box lids is

"One mechanical officer has suggested that the journal bearings shipped by the manufacturer should be packaged in order to prevent damage in transit, in the stores, and in the yards. Damage of this nature can be expected practically to be eliminated if and when bearings are packaged before shipment."

Courtesy Nickel Plate Magazine

Correct waste saturation, preparation and application to the journal box requires careful training.

not at all an uncommon sound in freight-car operations and, on many occasions, is only exceeded in frequency by the sight of journal boxes lacking their lids entirely. The present wooden dust guard would certainly appear to offer little in the way of active resistance to the passing of foreign material through the rear of the box and, eventually, into the waste and oil packing.

"Regardless of any improvement in the condition of the parts surrounding the bearing, its efficiency in service operation will continue to depend largely on the degree of effectiveness of and the adherence to proper maintenance standards. Over a period of many years a set of rules and regulations has been devised by the Association of American Railroads and by the individual railroads to govern the essential requirements involved in the maintenance of these bearings.

"Any deviation from what has been established as standard practice can only result in the appearance of adverse operating conditions and a lowering of the efficiency of bearing performance. Rigid adherence to these rules of maintenance is a sure and certain means of securing improved bearing performance. And yet the tendency to deviate from them appears not only to be general today, but to be on the increase."

Mr. Dick explained that his own organization during recent months has conducted "two complete and extensive surveys with a view to compiling the information secured on the maintenance conditions pertaining at a large number of locations on the lines and presenting our findings to the officers of the respective mechanical departments. Permission to conduct these surveys was granted by these officers and the reports which we turned over to them indicated the incidence of deviations from standard maintenance and inspection practices for journal bearings. These officers were most cooperative in reviewing the accumulated data and in taking steps to correct many of the deviations that were uncovered. This, I believe, was the first time that a full picture of the situation has been prepared and presented to the Canadian railroads by a bearing manufacturer and the satisfactory outcome of these surveys has doubtless laid the foundation for further investigations.

"During the first survey our service engineers visited a large number of locations where journal bearings were being serviced from large rip tracks down to caboose and baggage-car bearings storages. In our reports to the mechanical-department officers, however, we at all times avoided giving any details as to the locations of the repair points, stations, etc., where the deviations from standard practice were found. We confined ourselves to reporting only the nature of the deviation and the incidence of its occurrence. Our thought in this connection was that, after the steps taken by the mechanical-department officers to improve maintenance conditions had been in force for some time, we would resurvey the situation in order to determine whether the deviations found originally at the various locations, known only to ourselves, had been corrected. The fact that we did find considerable improvement amply justified our faith in this program.

What the Surveys Disclosed

"Although the car foremen are not themselves responsible for seeing that journal bearings in the stores are correctly piled, they can make it a point to detect instances of improper piling and cases of mishandling of bearings during transit from stores to repair tracks. Where bearings are found to have damaged surfaces, these should never be applied to car journals.

"The condition of the journal at repack and rebrass should always be determined and under no conditions should a scored or damaged journal be returned to service.

"In the case of packing adjustment at train inspection it is essential that all journal boxes be inspected and that packing be adjusted wherever necessary. Frequently during our surveys it was noted that insufficient staff or insufficient station time existed for proper inspection. Where such circumstances pertain, adjustments in staff or in station time could be made with advantage.

"Some of the mechanical department officers of the Canadian railroads have expressed the thought that, with proper journal-box inspection and packing adjustment at the starting terminal, some of the divisional inspection points along the line could be eliminated on through freight trains, with more time for proper inspection being permitted at the remaining point or points.

"Our surveys disclosed the fact that a very considerable number of car men appeared to be incompletely

familiar with the details of the proper method of packing a journal box and the proper oil saturation level. It was directed by the mechanical department officers, after they had gone over our findings in this connection, that each car foreman should spend at least one-half hour per week demonstrating to his car inspectors the proper method of packing and servicing journal boxes. This is particularly important in the case of men working on night shifts Our surveys indicate that a large percentage of night-shift men are improperly instructed and display indifference to the proper methods of maintenance and inspection.

"The practice of cleaning journal boxes at repair tracks was found to be quite poor at many locations. There is little point in repacking, or in rebrassing and repacking, if previously existing dirt, oil and wool fibers are to be left adhering to the box sides, lids, tops and bottoms and permitted the chance of interfering with the efficiency of subsequent performance.

"Despite the many limitations imposed by A.A.R. rulings, it is still possible for the manufacturers to do much to improve bearing life and performance," Mr. Dick asserted. "This can be done in at least three ways," he said. "First, by working within the restrictions imposed by the A.A.R. towards the improvement of certain characteristics of the bearing; second, by improving the methods of manufacture; and third, and by far the most important, by investigating the conditions surrounding the operation of the journal bearing in actual service."

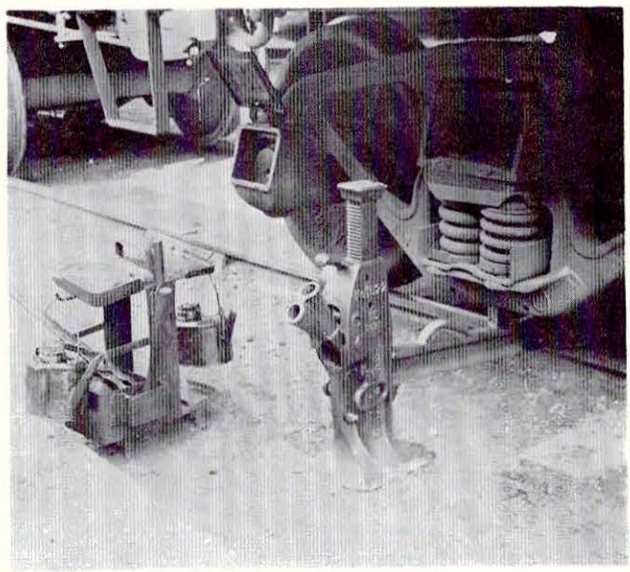
The speaker then gave these examples of the first two:

"The A.A.R. decides the limiting percentages for the ranges of copper, lead, tin and zinc in the alloy used to produce the bronze back, just as it does for the composition of the lining metal. Some time ago we discovered a fundamental trend in connection with the strength of the bond between the lining and the bronze back. This bond is established as a result of the machining, fluxing, tinning and babbitting operations which form part of the manufacturing procedure. Putting the matter briefly, the fluxing operation provides a clean surface to which the solder subsequently applied can adhere by the formation of an intermediate alloy layer at the bronze surface. The application of molten babbitt metal to this solder coating results in the formation of an intermediate alloy layer at the solder surface. The final bond area then extends from the bronze back through the intermediate alloy layers to the babbitt lining.

"Using the normal and economical methods of fluxing and tinning which must prevail in railway journal-bearing production, it was found that the room-temperature bond strength increased with increasing zinc content of the alloy comprising the bronze back. We found an average bond strength of 9,000 p.s.i. for bronze-back zinc contents of around 1.0 per cent and one of 13,000 p.s.i. for zinc contents approximating 3.0 per cent. Since A.A.R. rulings until recently merely specified a maximum zinc content of 3.0 per cent with no minimum level, the significance of these findings is at once apparent.

"For reasons pertaining to foundry production, it has been found convenient to limit the upper level of zinc content to 4.5 per cent and to establish a working production value of not less than 2.0 per cent.

"Subsequent to this discovery, and after the higher-zinc-content bearing had been produced by us in Canada for some time, a further investigation was made to ascertain the ability of this improved bond to retain its strength at higher temperatures within the range of normal journal operating temperatures. The tests performed in this connection showed that the 3-per cent zinc bearing, after being treated at 200 deg. F. and cooled again to room temperature, was capable of retaining 90 to 98 per cent of its room-temperature bond strength. The 1-per cent zinc bearing, on the other hand, showed itself able to retain only 60 to 65 per cent of its room-temperature strength. As a result of these findings the bearing manufacturers in Canada adopted the higher zinc-content bearing as standard, and I can safely say that since this time loose linings have become a thing of the past where Canadian railroads are concerned. The A.A.R. has now recognized this critical zinc range and has taken steps to insure that the permissible zinc content range now specified allows adherence to the desired values.



Servicing of journal boxes must not be neglected.

"As an example of the second means of improving journal-bearing performance, several years ago we applied a system of statistical analysis to our journal-bearing production operations. The purpose here was to separate out each individual reason for the rejection within our own organization of bearings defective as a result of vagaries in our manufacturing process. These reasons were then investigated from the point of view of the incidence of defectives originating because of each reason. From the results of this survey a concerted attack was made on the causes underlying these rejections. Subsequent monthly surveys and comprehensive reports issued on an annual basis were used both to indicate any progress made and to point the ways to further improvement. The success of the program has been adequately demonstrated by the fact that, in the four years since its inception, we have been able to reduce internal rejections 75 per cent and have now reached an incidence of internal rejection that is phenomenally low."

Mr. Dick said that the correction of no single one of the conditions outlined by him would eliminate the hot-box problem. But, he declared, "the correction of all of these conditions will reduce the incidence of hot-box failure to a level where the solid bearing will be given the opportunity of proving its ability to provide a superior performance. Furthermore, the correction of these conditions, together with the advances that can yet be made with respect to bearing design and method of lubrication, may provide for performance records unthought of today."

Southern Pacific's Jennings yard at Roseville, Cal., has two hump tracks leading to a 49-track classification yard. The double crossover just below the master retarders permits access from any track in the receiving yards to any track in the classification yard. When traffic is heavy in summer, both hump tracks are used; in winter, one.

This Yard Is Adaptable to Seasonal Business

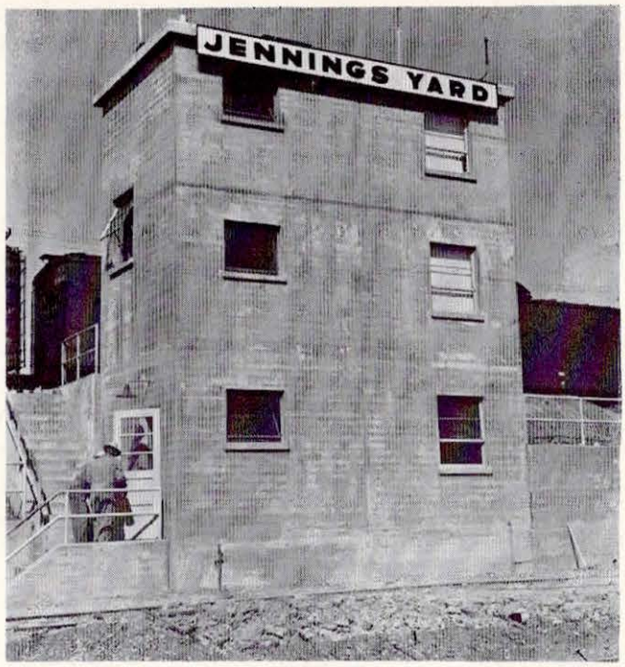
SP's $4.5-million project at Roseville incorporates a standby retarder hump to handle switching of heavy summer traffic

Wide seasonal fluctuations in the amount of traffic originating on the Southern Pacific in California, caused largely by heavy movements during the summer season, were an important consideration in the design of a hump-retarder classification yard this company has constructed at Roseville, Cal. Because of this condition, the yard was built in two parts, each served by a separate humping track so that one or both leads may be used, depending on the volume of business to be handled.

The eastbound half of the new yard was formally put into service April 7, 1952, and the westbound half on June 1. The entire yard was expected to be in operation by the end of the year. The new facility has been christened the "Jennings Yard" in honor of M. L. Jennings, superintendent of the Sacramento division, who started his career as a switchman in the Roseville yards.

Built at a cost of $4.5 million, the new terminal consolidates four former small yards into one integrated facility where cars flow progressively from a receiving yard, over a hump and through retarders into a classification yard, and then into a departure yard.

Roseville always has been an important classification



A three-story humpmasters' tower (left) and two conductor's shelters were built at the crest of the hump. This tower has two control centers. The third story is used by a humpmaster for supervising operations on the north hump lead when both tracks are being used, and the second story is used by a humpmaster for supervising operations on the south hump lead when both tracks are being used, or for all humping operations when only one hump track is in use. The lower story of the humpmasters' tower (right) houses signal and communications equipment.

point and also a main icing station. Situated at the western foot of the Sierra Nevada mountains, it is the point where lines converge from the rich San Joaquin valley, from San Francisco via Stockton and from Oakland via Sacramento, and it is also the junction point of the line to Portland and the northwest and the line to Ogden and the east. The increased switching capacity afforded by the new classification yard will permit it to handle classification work for other yards where the work volume has increased substantially as a result of the defense program.

The original yard facilities at Roseville were opened for operation in 1907. They consisted of a yard north of the main line for westward freight trains, and a yard, together with an icing platform, south of the main line for eastward freight trains. Through the years these facilities were expanded until in 1950, when it was decided to construct a retarder yard at this point, there were four small yards in use. Two yards, one north and the other south of the double-track main line and known as the West and East yards, respectively, were just west of Roseville, and the two others, also one north and one south of the main line, and known as the Antelope and High Line yards, respectively, were situated east of Antelope, a station about 4.5 mi. west of Roseville. The two pairs of yards were connected north and south of the main line by drill tracks about 3,000 ft. long.

The fact that ultimate construction of a retarder yard had been kept in mind in the expansion of these yards made it possible to utilize a considerable portion of the Antelope and High Line yards as a receiving yard, and the old West and East yards as a departure yard. Also, by constructing a new main line around the yards on the north, it was possible to incorporate the original double-track main line as yard tracks in the new receiving and departure yards.

The new receiving yard was formed by extending 16 tracks in the old Antelope and High Line yards approximately 4,000 ft. westerly, incorporating approximately 2,000 ft. of the existing tracks, and constructing two additional tracks for the entire length. The two old main tracks were converted to yard tracks. The net result was a new receiving yard of 20 tracks, 10 for eastbound trains and 10 for westbound. These tracks hold from 98 to 123 cars each. Two caboose tracks, one at the west end of the eastbound receiving yard and the other at the east end of the westbound, were constructed for set-out purposes until convenient to move the cabooses to new tracks provided in the departure yard.

The new hump yard was constructed in the area between the two pairs of existing yards. The presence of Dry creek (see diagram) led to the decision to operate the double-track hump from west to east. It was necessary to remove approximately 3,500 ft. of trackage from the east ends of the old Antelope and High Line yards, as well as of the drill tracks previously mentioned, to give sufficient length to the new classification yard tracks.

Both the tracks leading to the hump approach are fitted with self-restoring dragging-equipment detectors, car-inspection pits and manually operated oilers. The car-inspection pits are in a pedestrian subway of reinforced concrete through the hump, with niches for side and underneath car inspection. There is a tower between the two hump leads for overhead car inspection.

The classification yard consists of 49 tracks, ranging in capacity from 40 to 64 cars each. The tracks are divided into seven groupings of seven tracks each. The seven groupings are served by 12 Union Switch & Signal Model 31 retarders of the electro-pneumatic type. The two master retarders are 24-cylinder double-rail retarders and the auxiliary ones consist of two 24-cylinder, one 20-cylinder and seven 18-cylinder retarders. Every car switched goes through one of the master retarders and two of the auxiliary ones. A double crossover was installed just below the master retarders to provide a flexible arrangement which permits access to any track of the classification yard from any track of the two receiving yards.

A three-story humpmasters' tower is located at the

crest of the hump. The bottom story of the structure houses signal and communication apparatus. The second story is used by a humpmaster for supervising humping operations on the north hump lead when both tracks are being used. The top story is used by a humpmaster for supervising humping operations on the south hump lead when both tracks are being used, or for all operations when only one hump lead is in use. There are also two hump conductor's shelters located at the hump crest.

Four Control Centers

Two one-story and one two-story towers house the towermen who control the retarders and the classification yard switches. The two-story structure, known as Tower A-B, is actually two towers in one. The A portion, in the top story, controls the north hump track only. It is manned when both hump tracks are being used. The B portion is the lower story and controls the south hump track when both hump tracks are being used and, when only one track is being used, controls either one of them and also the power switches for the double crossover just below the master retarders. Controls may be shifted from B to A (or vice versa) by a transfer switch.

The main body of the classification yard is on a 0.2-per cent grade. All turnouts leading from the hump leads are No. 9 and of 132-lb. material with self-guarded frogs. All switch machines at the west or hump end are of the electro-pneumatic direct-action type, protected by single-rail track circuits.

A 150-ton Ferguson track scale is located on Track No. 21 with a crossover west of the scale so access can be had to it from track No. 22. When both hump tracks are being used, tracks No. 1 to No. 21 are used as a west classification yard and tracks No. 22 to No. 49 as an east classification yard. This arrangement permits the scale to be reached by both hump leads from the east and west receiving yards.

The classification yard is trimmed at its east end by five ladder tracks which funnel cars through four trimming leads into the departure yards. Two of these leads serve the westbound departure yard and the other two the eastbound.

The departure yard incorporates the original West and East yards of the old Roseville yard. The tracks in these yards were extended as necessary to give the desired capacity. It contains 21 tracks, 10 for westbound and 11 for eastbound trains. The tracks in the westbound departure yard will hold from 104 to 124 cars each, while those in the eastbound departure yard will hold from 81 to 132 cars each. Two of the tracks in the latter yard serve the icing platform. In addition to the tracks in the westbound yard, there are two tracks servicing pre-icing tracks where cars are iced before being moved to various locations for fruit loading. A new stucco yard office and a yardmaster's tower, of reinforced concrete, were built opposite the west end of the departure yards.

Through running tracks were constructed around the north and south perimeters of the receiving, classification and departure yards. A new main track was constructed around the north side of Jennings yard. At its west end it leaves the old main tracks at Antelope station and at its east end connects with them again at Roseville passenger station.

The main track is interlocked from the switches where the freight trains leave the main tracks at Antelope when entering Jennings yard to a point near Roseville. This interlocking has coded control and is handled by the operator in the train-order station at Antelope. For a distance at its west end the main line is double-tracked. The turnout at the end of this section is equipped with a Mechanical Switchman, a facing-point lock and an electric lock so that the switch cannot be hand thrown unless the operator gives permission.

The switches near Roseville of the diverging tracks and the crossovers, and for movements to and from the line to Portland, which crosses the two main tracks, are handled by switch tenders. All movements are protected by automatic signals having a hold-out feature that enables the switch tenders to hold out any signal at stop.

On the single-track portion of the main track around the north side of the yard, intermediate signals are provided with a directional stick which permits following moves but prevents opposing moves.

The signals on the hump consist of two Style H-2 signal heads mounted back-to-back on a single mast for each hump track. There are two repeater signals for the humping signals and four repeater signals for the trimming signals. The humping signals display four indications: green for "come to hump"; yellow for "hump"; red for "stop"; and flashing red for "back." Trimming signals display yellow for "trim"; red for "stop."

There are control panels for the signals in the humpmaster's tower and in the hump conductors' shelters. The hump conductor may clear the signals through his control panel provided that the humpmaster has cleared his panel, but the humpmaster can set the signals at "stop" irrespective of the setting on the hump conductor's panel. When desired, control of all operations may be transferred to one humpmaster and one hump conductor through a transfer lever.

The communication system consists of high-level paging speakers for the length of the yard, supplemented by low-level talk-back speakers at strategic points. Radio communication is available between switch engines and the humpmasters' or yardmaster's offices. Teletype machines connect the yard office and the towers for the transmission of switch lists. Conventional telephones are also provided between fixed points.

Conductors of freight trains arriving at Jennings yard from the east detrain with their waybills opposite the yard office. The waybills from trains arriving from the west are brought to the yard office by bus.

Eastbound trains enter the receiving yard directly while westbound trains enter the yard by means of the

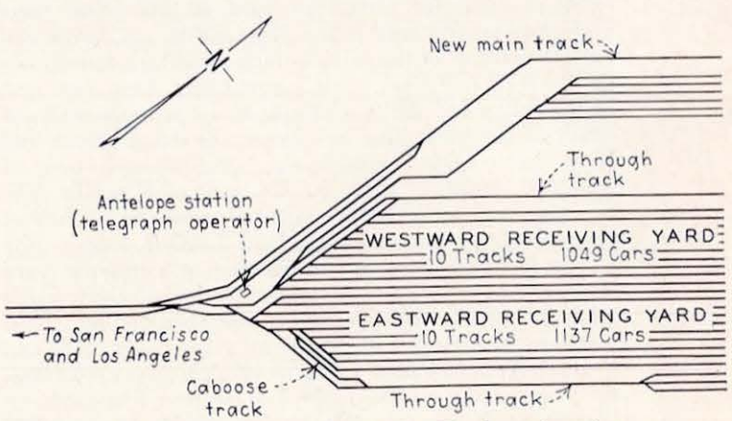


Diagram of the new yard at Roseville. Eastbound trains enter the receiving yard directly, while westbound trains enter the northerly through track at a connection near Roseville and move around the departure and classification yards to get to the receiving yard. Westbound trains leaving the departure yard at this point use the southerly through track.

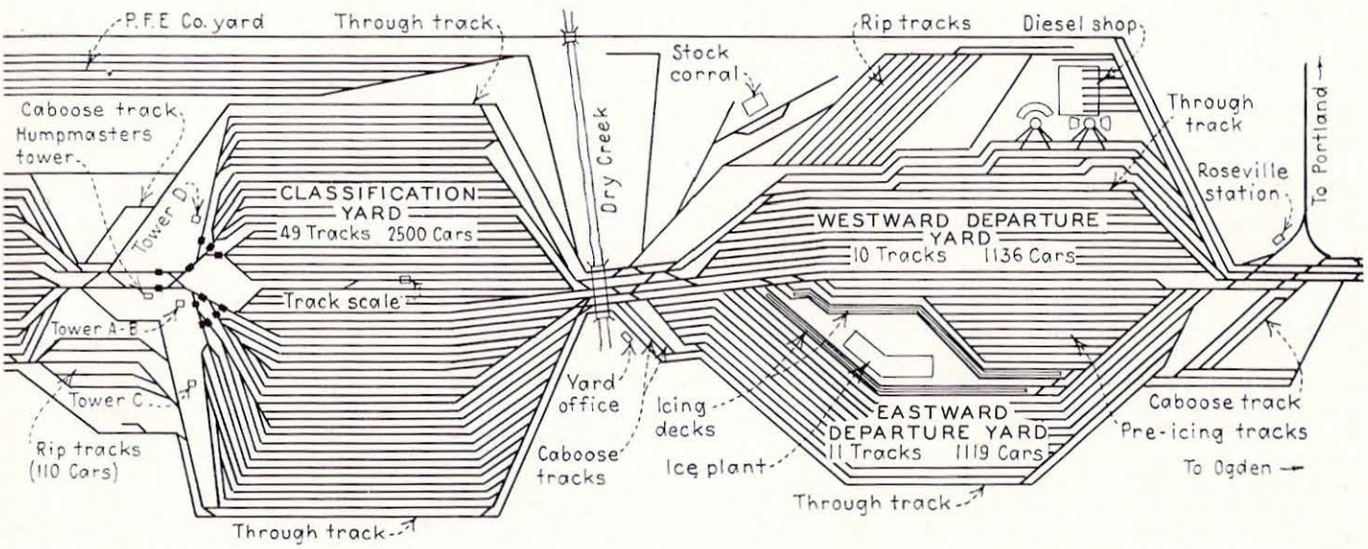
From this tower at the west end of the departure yard the yardmaster can observe trimming operations in the classification yard as well as the make-up of trains in the departure yards.

through running track, which is entered at the Roseville station connection and followed around the north sides of the departure and classification yards. On arriving at the receiving yard, westbound trains can enter by either one of two connections. This feature permits a train to be received on any one of five tracks without interfering with humping operations from any of the other tracks.

A new light-car-repair yard was constructed south of the hump. This consists of five tracks with a total capacity of 110 spaced cars, and a load-shifter track. The areas between the tracks are paved with asphaltic concrete to the tops of the ties, and drain toward the centers of the pavements.

New steel buildings for stores, a blacksmith shop, a waste house, etc., were provided near the light car-repair yard, and wash and locker buildings were erected near the hump, the repair tracks, and the yard office. Three skatemen's shelters and two car-checker shelters, also of steel construction, were provided at the classification yard.

All work was done by railroad forces with the exception of the grading and some minor special work. The yard was designed and constructed under the general direction and supervision of E. E. Mayo, chief engineer, with the cooperation and assistance of Mr. Jennings. W. F. Turner, division construction engineer, was in charge of field construction.



David E. Smucker Heads The Detroit, Toledo & Ironton

Stanley P. Ruddiman has retired at his own request but will remain as a member of the board

David E. Smucker

Stanley P. Ruddiman

After having served as president of the 464-mile Detroit, Toledo & Ironton for a period of 25 years, Stanley P. Ruddiman has elected to retire from active duty. He has been succeeded by David E. Smucker, who recently resigned from the directorship of the Defense Transport Administration's transport division (*Railway Age*, November 24, 1952, page 16 and December 22, page 8).

The DT&I operates from Detroit, Mich., to Ironton, Ohio, on the Ohio river, and serves a number of important Ohio cities including Lima, Springfield and Jackson. Branches connect the main stem with Toledo and Adrian, Mich., but aside from important terminal trackage in the Detroit-Dearborn area, the road has no other branch lines. Under Mr. Ruddiman's leadership, the DT&I has made substantial progress in improving its facilities. It presently owns 54 locomotives, 19 of which are diesel-electric. Delivery of seven additional 1,500-hp. general purpose locomotives is expected in January. The road owns some 5,000 freight cars and delivery of 300 additional 50-ton 50½-ft. box cars, equipped with nailable steel flooring, is also scheduled for completion by the end of January.

Back in 1920 the DT&I was purchased by Henry Ford to haul coal and other products into his automobile plant as well as to handle outbound shipments of finished motor cars. Later, in 1929, the road passed into the hands of the Pennroad Corporation, a company which has a close relationship with the Pennsylvania. On February 28, 1951, Pennroad completed sale of its interest in the DT&I to the Pennsylvania and the Wabash (a Pennsylvania affiliate). However the road has remained independently managed through these changes in stock ownership.

President Since 1927

Mr. Ruddiman was born in Detroit. He graduated from Vanderbilt University where he won both a Bachelor of Science and Bachelor of Engineering degree. Upon graduation in 1912, he became resident engineer on a sewer system installation at Opelousas, La. In 1913 he became a member of the staff of the city engineer of Birmingham, Ala., where he remained until he joined the Ford Motor Company at Detroit in 1915. His subsequent career—until he entered railroad service with the DT&I in 1927—was with the Ford organization. Mr. Ruddiman has been president of the road ever since he came on the property. He succeeded Mr. Ford, who had previously devoted considerable time and money to revitalizing the road's motive power and equipment, and who at one time had given serious consideration to electrifying it.

Ex-Long Island Chief

Mr. Smucker is a graduate of Ohio State University, from which he holds a Bachelor of Science in Civil Engineering degree. Previously he had studied at the University of Cincinnati. He entered railroad service in May 1929 as an assistant on the engineer corps on the Pennsylvania's Philadelphia terminal division. Until April 1934, he served successively as assistant supervisor of track on the Delaware, Philadelphia, Baltimore and Philadelphia terminal divisions. He then became supervisor of track on the DelMarVa division and later on the Maryland division, and ultimately (in 1940) he became assistant division engineer at Fort Wayne, Ind. Next he moved to the Toledo division as division engineer in 1942, then to Chicago as assistant superintendent of freight transportation. In January 1943, he was named superintendent of the Indianapolis division and he subsequently served in that capacity at Fort Wayne and at Pittsburgh. In March 1948 Mr. Smucker was appointed general manager of the Long Island. He was named trustee and chief operating officer of that road in April 1949.

He returned to the Pennsylvania in October 1951, as assistant chief engineer. He was "on loan" to the D.T.A. from May 6 of this year and after his recent resignation from that post he acted temporarily as consultant to the D.T.A. on matters relating to materials and equipment requirements of the railroads. His appointment as president of the DT&I became effective January 1.

FINANCIAL

(*Continued from page 18*)

unsecured. Both notes will bear interest at 4½ per cent, and will be repaid in full by December 1, 1962.

Application has been filed with the I.C.C. by:

DELAWARE, LACKAWANNA & WESTERN.—To assume liability for $6,480,000 of series L equipment trust certificates, to finance in part 700 freight cars and 20 diesel-electric locomotives costing an estimated $8,130,700.

	Description and Builder	Estimated Unit Cost
500	50-ton hopper cars (American Car & Foundry Co.)	$ 5,544
200	70-ton covered hopper cars (American Car & Foundry Co.)	7,853
2	800-hp. switching locomotives (Electro-Motive Division, General Motors Corporation	91,631
3	1,200-hp. switching locomotives (Electro-Motive)	103,766
5	1,500-hp. all-purpose road locomotives (Electro-Motive)	162,201
10	2,400-hp. all-purpose road locomotives (Fairbanks, Morse & Co.)	248,226

The certificates, to be dated January 15, 1953, would mature in 15 annual installments of $432,000 each, beginning January 15, 1954. They would be sold by competitive bidding, with the interest rate to be set by such bids.

Dividends Declared

BELT R.R. & STOCK YARDS.—common, 50¢, quarterly; 6% preferred, 75¢, quarterly, both payable January 1 to holders of record December 20, 1952.

CAROLINA, CLINCHFIELD & OHIO.—$1.25, quarterly, payable January 20 to holders of record January 10.

CINCINNATI INTER-TERMINAL.—4% preferred, $2, semiannual, payable February 1 to holders of record January 16.

DETROIT & MACKINAC.—5% non-cumulative preferred, $2, resumed, payable January 15 to holders of record January 2.

PHILADELPHIA & TRENTON.—$2.50, quarterly, payable January 12 to holders of record December 31, 1952.

READING.—50¢, quarterly, payable February 12 to holders of record January 15.

STONY BROOK.—$2, semiannual, payable January 3 to holders of record December 30, 1952.

WABASH.—$2, payable December 24 to holders of record December 19.

WESTERN NEW YORK & PENNSYLVANIA.—common, $1.50, semiannual; 5% preferred, $1.25, semiannual, payable January 2 to holders of record December 31, 1952.

Security Price Averages

	Dec. 29	Prev. Week	Last Year
Average price of 20 representative railway stocks	69.32	70.38	54.39
Average price of 20 representative railway bonds	95.16	95.60	90.92

CAR SERVICE

I.C.C. Service Order No. 865, which imposes super-demurrage charges up to $20 per day, has been modified by Amendments 30 and 31. Amendment No. 30 set back the order's expiration date from December 31, 1952, to March 31, 1953. Amendment No. 31 continued in effect (also until March 31) provisions which suspend the order's applicability to all cars except gondolas and flats.

CONSTRUCTION

Denver & Rio Grande Western.—See Equipment & Supplies columns on page 15.

RAILWAY OFFICERS

EXECUTIVE

Thomas J. Tobin, vice-president and comptroller of the Erie, has been elected to the newly created position of vice-president for finance and accounting, with headquarters as before at Cleveland.

Robert N. Woodall, freight traffic manager of the SOUTHERN at Cincinnati, has been promoted to assistant vice-president at Washington, D.C., succeeding **W. Mason King,** whose promotion to vice-president in charge of traffic at Washington was reported in *Railway Age* December 29, page 52.

FINANCIAL, LEGAL & ACCOUNTING

Rowland L. Davis, Jr., general solicitor of the DELAWARE, LACKAWANNA & WESTERN, has been promoted to general counsel, with headquarters as before at New York. His appointment was announced incident to the resignation of **David I. Mackie,** vice-president and general counsel, who has assumed the newly created office of chairman of the Eastern Railroad Presidents Conference (*Railway Age*, December 29, 1952, pages 8 and 11). Mr. Davis was born at Cortland, N.Y., on August 3, 1907, and attended Amherst College and the University of North Carolina (B.A. 1929). He attended the law schools of the latter university, of Cornell University, was graduated from the law school of Yale University (LL.B., 1932) and was admitted to the bar of New York state in 1933. He became associated with the law firm of Stanchfield, Collin, Lovell & Sayles on August 15, 1932, becoming a member of the law department of the Lackawanna on June 15, 1939, as an attorney. He was appointed assistant general attorney on April 16, 1940, general attorney on March 1, 1946, and general solicitor on May 16, 1947.

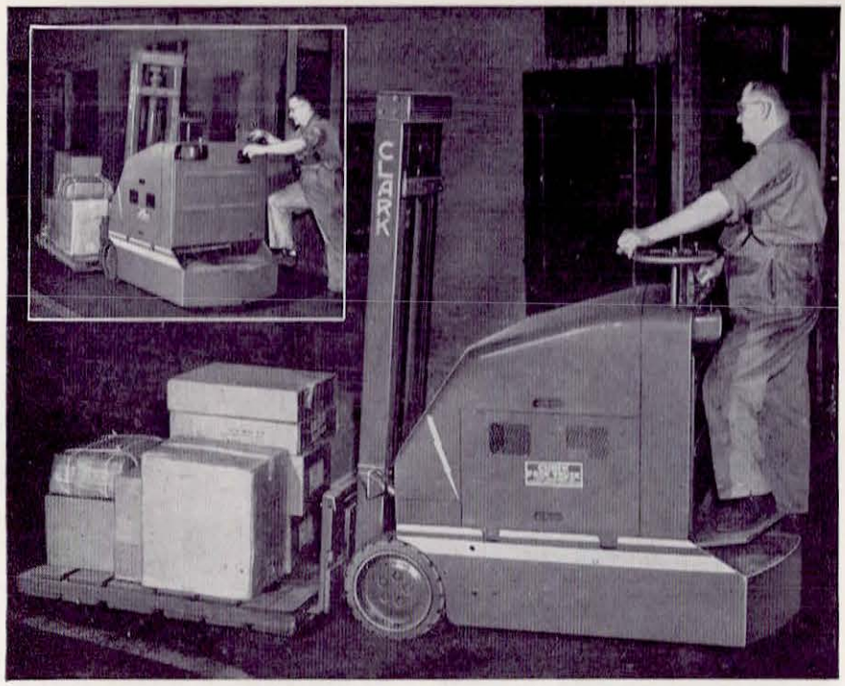
Rowland L. Davis, Jr.

G. C. Stromberg, tax agent of the Soo LINE, has been elected treasurer. He succeeds **C. H. Bender,** who has retired. Mr. Stromberg joined the Soo in 1922 as a clerk in the statistical section of the accounting department. He held a number of positions in that department until he was appointed special accountant in the comptroller's office in 1937. During October 1941 he was transferred to the income tax section of the law department, where he held the position of tax agent prior to his current appointment.

G. C. Stromberg

Francis G. Sweeney, comptroller and treasurer of the RUTLAND at Rutland, Vt., resigned from that position on December 31, 1952, to join the NEW YORK CENTRAL.

George W. Oakley, assistant comptroller of the ERIE, has been promoted to comptroller, with headquarters as before at Cleveland. **Robert H. Hann,** general attorney, has been named secretary, and **William H. Meyn,** assistant treasurer, has been promoted to treasurer, in a rearrangement of departments made following the death of **Gerard B. Townsend,** secretary and treasurer (*Railway Age*, December 22, page 64). Messrs. Oakley and Meyn will report to **Thomas**



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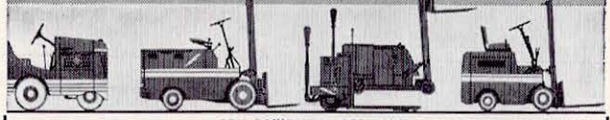

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AUTHORIZED CLARK INDUSTRIAL TRUCK PARTS AND SERVICE STATIONS IN STRATEGIC LOCATIONS

J. Tobin, who has been named vice-president for finance and accounting, while Mr. Hann will be responsible to the president.

Mr. Oakley was born at Hawthorne, N.J., on February 22, 1897, and entered the service of the Erie in November 1911 in the timekeeping and accounting department at Jersey City. During World War I he was furloughed

George W. Oakley

for service in the United States Army. He returned to the Erie as assistant chief clerk in the accounting bureau at Jersey City in 1919, advanced to chief clerk, and then worked as division accountant. Mr. Oakley subsequently served as chief clerk to auditor of disbursements at New York and Cleveland, chief clerk to president, and general accountant in the comptroller's office. He was promoted to assistant auditor of revenues in 1944, auditor of disbursements in 1946, and assistant comptroller in 1948.

OPERATING

L. R. Mitchell has been appointed acting trainmaster of the PANHANDLE & SANTA FE at San Angelo, Tex. He replaces **C. W. Herbert,** who is on leave of absence.

G. W. Maxwell, assistant superintendent of the Buffalo division of the NEW YORK CENTRAL, has been appointed superintendent of that division at Buffalo, N. Y., succeeding **M. R. Dwyer,** who has been named assistant to general manager at Buffalo. **I. A. Olp,** assistant to general manager at Syracuse, has been appointed assistant superintendent of the Buffalo division.

TRAFFIC

Henry Deissler, district passenger agent of the GREAT NORTHERN, has been appointed general agent, with headquarters as before at New York, succeeding **Frank M. Schnell,** who has retired after 31 years of service. **J. E. O'Connell** has been appointed district passenger agent at New York. **J. F. Thomann,** district passenger agent at Chicago, has been named dis-

trict freight and passenger agent at Washington, D. C. **E. H. Whitlock,** general agent in charge of the passenger office at Washington, has retired after 42 years of railroad service, 30 of which were with the GN.

D. W. Johnston, general freight agent of the CANADIAN PACIFIC at Montreal, has retired under the pension regulations of the company, after over 41 years of service. **A. W. Izzard,** general freight agent at Montreal, succeeds Mr. Johnston, with the same title and headquarters as heretofore. **R. MacArthur,** traveling freight agent at Buffalo, N. Y., has been appointed district freight agent there, succeeding **Frank B. Ward,** who has retired under the company's pension rules, after 42 years of railroad service. **E. O. Riddell** has been appointed chief of tariff bureau at Montreal, succeeding **E. M. Scully,** who has been appointed assistant general freight agent (rates) at Montreal. **K. D. Carmichael** also has been appointed assistant general freight agent (rates) at Montreal.

M. A. Ehlers has been appointed assistant general freight agent of the DELAWARE, LACKAWANNA & WESTERN at New York.

Joseph J. Mullen, general agent of the MINNEAPOLIS & ST. LOUIS at Chicago, has been appointed general agent at New Orleans, in charge of traffic sales and service in Louisiana and adjacent territory. He succeeds the late **Clifford M. Strong.**

The GREAT NORTHERN has appointed **Wallace D. O'Brien** and **Frank J. Conrad** to the newly created positions of assistant general freight traffic managers, St. Paul. Mr. O'Brien joined the GN in 1916, serving first as a clerk and later as a tariff inspector, traveling freight agent, and general agent. His

Wallace D. O'Brien

appointment to assistant general freight agent came in 1928, followed in 1942 by his promotion to general freight agent. Three years later he was named assistant freight traffic manager, rates and divisions, and, in 1948, freight traffic manager, rates and divisions. In his new position he remains in charge of rates and divisions.

Mr. Conrad began his railroad career with the Rock Island in 1920. He later served as rate clerk for the Western Trunk Line Committee at Chicago; in the Southern Pacific's freight depart-

Frank J. Conrad

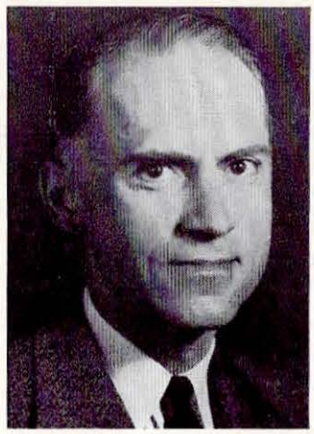
ment at Chicago, and with the Western Pacific as foreign freight agent at San Francisco. In 1935 he joined the Burlington as foreign freight agent at Chicago. Appointment as assistant freight traffic manager there followed in 1940. In 1946 he was named freight traffic manager, Western lines, at Omaha and in 1950 he returned to Chicago as freight traffic manager—system. He joins the GN with his current appointment to be in charge of sales.

Alan M. White has been appointed to membership on the RAILROADS' TARIFF RESEARCH GROUP, according to a December 26 announcement from the Group's chairman, Charles S. Baxter. Mr. White, who was rate analyst in the office of the Pennsylvania's traffic vice-president, came to the group as successor to H. F. Sutter. Mr. Sutter, who was on leave of absence, has returned to his position as chief of the tariff bureau of the PRR.

Charles W. Gowl, eastern traffic manager of the SOUTHERN at New York, has been promoted to freight traffic manager at Cincinnati, succeeding **Robert N. Woodall,** who has been promoted to assistant vice-president at Washington, D.C. **Clyde C. Cox,** general eastern freight agent, has been promoted to succeed Mr. Gowl as eastern traffic manager, with headquarters remaining at New York.

Mr. Gowl was born at Harrisonburg, Va., on September 12, 1905, and entered the service of the Southern in August 1928 as a clerk at Washington, D.C. He subsequently served as rate clerk at Columbia, S.C., chief clerk at Cincinnati, and as special freight traffic representative, traveling freight and passenger agent, district freight and passenger agent, and general eastern freight agent at New York. Mr. Gowl was appointed assistant general freight agent at Birmingham, Ala., in November 1942, serving later as assistant freight traffic manager. On January 1, 1949, he was promoted to eastern traffic manager at New York.

Mr. Cox was born at Fort Worth, Tex., on September 15, 1905, and entered the service of the Southern as a stenographer in the engineering department at Chattanooga, Tenn., in September 1929. He transferred to the traffic department in November 1936 and was employed as stenographer-clerk at Chattanooga and Lexington,



Charles W. Gowl

Ky., before becoming chief clerk to division freight agent at Winston-Salem, N.C., in October 1938. He was promoted to freight traffic representative at Winston-Salem in July 1939; commercial agent at New Orleans in September 1941; assistant general freight agent on December 1, 1943; and general eastern freight agent at New York in January 1946.

MECHANICAL

Charles E. Melker, superintendent motive power of the CHICAGO, BURLINGTON & QUINCY at Havelock, Neb., has been appointed general superintendent motive power of that road and the COLORADO & SOUTHERN, at Chicago. **Clarence A. Moody,** superintendent of the locomotive shop of the Burlington and superintendent motive power of the C&S, has been named assistant general superintendent motive power of the two roads, with headquarters as before at Denver. The positions of superintendents motive power at Havelock and Denver have been abolished.

Earl D. Hall, engineer of tests and chief chemist in the ERIE laboratory at Meadville, Pa., has been promoted to mechanical engineer at Cleveland, succeeding **Charles P. Brooks,** who has retired after more than 42 years of service. **Heinz P. Zydor,** office engineer for the mechanical department, has been promoted to supervisor of machinery and tools, with headquarters as before at Cleveland, succeeding

Conrad F. McKinney, who has retired after more than 42 years of service. **Mathew L. Larkin,** assistant engineer of tests, has been appointed chief chemist in the testing laboratories at Meadville.

Mr. Hall began his career with the Erie in 1913 as a boilermaker helper in the Meadville shops while attending college. He has been employed by the railroad continuously since 1925, when he became a special apprentice at Meadville. Subsequently he worked as supervisor of road tests, train tonnage inspector, Wyoming division trainmaster, and dynamometer car operator until 1933, when he was appointed chemist at Meadville. Mr. Hall was promoted to chief chemist in 1937, and advanced to engineer of tests and chief chemist a year later.

Mr. Brooks was born at Shiloh, La., on December 29, 1887, and was graduated from Louisiana Polytechnic Institute (B.S., in M.E., 1910). He entered railroad service in May 1911 as a special apprentice on the Erie at Buffalo, and subsequently served as inspector of materials and tests at Meadville, apprentice instructor at Hornell, foreman at Port Jervis, test department assistant at Meadville, assistant engineer of tests at Meadville, supervisor of apprentices at Cleveland, and general roundhouse foreman at Marion. Mr. Brooks was appointed mechanical engineer in July 1940.

ENGINEERING

H. B. Rutherford, assistant division engineer of the Buffalo division of the NEW YORK CENTRAL at Buffalo, has been appointed division engineer of the St. Lawrence, Adirondack and Ottawa divisions at Watertown, N.Y., succeeding **C. C. Lathey,** who has been transferred to the Electric division, at New York. **C. M. Gregg,** assistant division engineer of the Mohawk division at Albany, has been appointed division engineer of the BOSTON & ALBANY at Boston.

Somers H. Smith, assistant engineer of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC at Chicago, has retired.

Tom R. Snodgrass, chief engineer of the MONONGAHELA CONNECTING at Pittsburgh, will assume all duties formerly performed by **Tony Tagliafer** as superintendent of maintenance of way and engineering departments. Mr. Tagliafer has been appointed assistant to general superintendent. **John LeDonne,** draftsman, has been appointed track engineer.

C. W. Lester has been appointed engineer maintenance of way and assistant supervisor of bridges and buildings of the ILLINOIS TERMINAL at St. Louis.

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PURCHASES & STORES

H. A. Smith, purchasing agent of the TERMINAL RAILROAD ASSOCIATION OF ST. LOUIS, at St. Louis, is temporarily incapacitated due to ill health. Pending his recovery and return to duty, **A. E. Davis** has been appointed acting purchasing agent.

As reported in *Railway Age* November 10, 1952, page 74, **E. O'N. Furlong** has been promoted to purchasing agent of the CANADIAN PACIFIC at Victoria, B.C. Mr. Furlong began his railway service with the CPR in the general purchasing department during 1918, and subsequently served as assistant chief clerk to general purchasing agent at Montreal and as chief clerk there and at Toronto. He was appointed assistant purchasing agent at Toronto in 1941. From 1942 to 1946 Mr. Furlong was on loan to the Navy, Army and Air Force Institutes of Great Britain. He returned to Toronto as assistant purchasing agent in 1946 and in 1951 transferred to Winnipeg.

E. O'N. Furlong

SIGNALING & COMMUNICATIONS

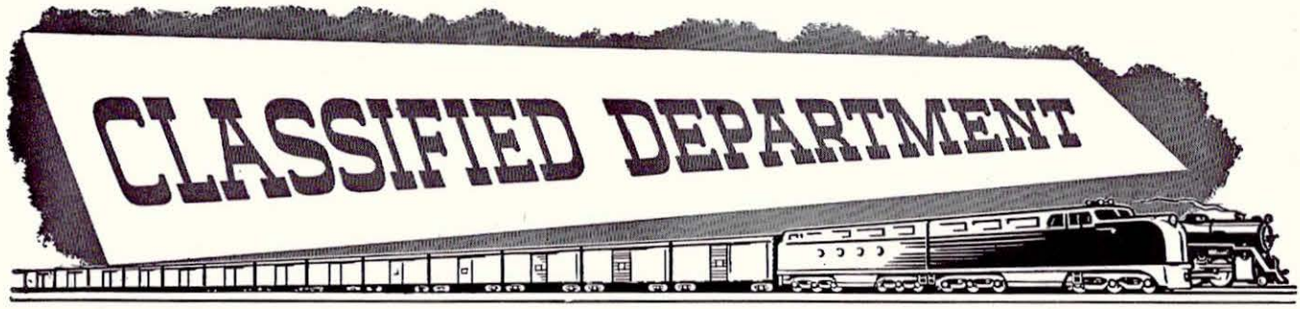
T. J. Platt has been appointed supervisor of signals of the ATLANTIC COAST LINE at Savannah, Ga., succeeding **D. R. Morris,** retired.

Sam Lucas, chief signalman of the MONONGAHELA CONNECTING, has been appointed signal engineer, with headquarters as before at Pittsburgh.

SPECIAL

George Leech has been named supervisor of safety of the MONONGAHELA CONNECTING, with no change in duties.

W. C. Laraway has been appointed superintendent of safety of the DELAWARE & HUDSON. The position of supervisor of safety at Albany, formerly held by Mr. Laraway, has been abolished.



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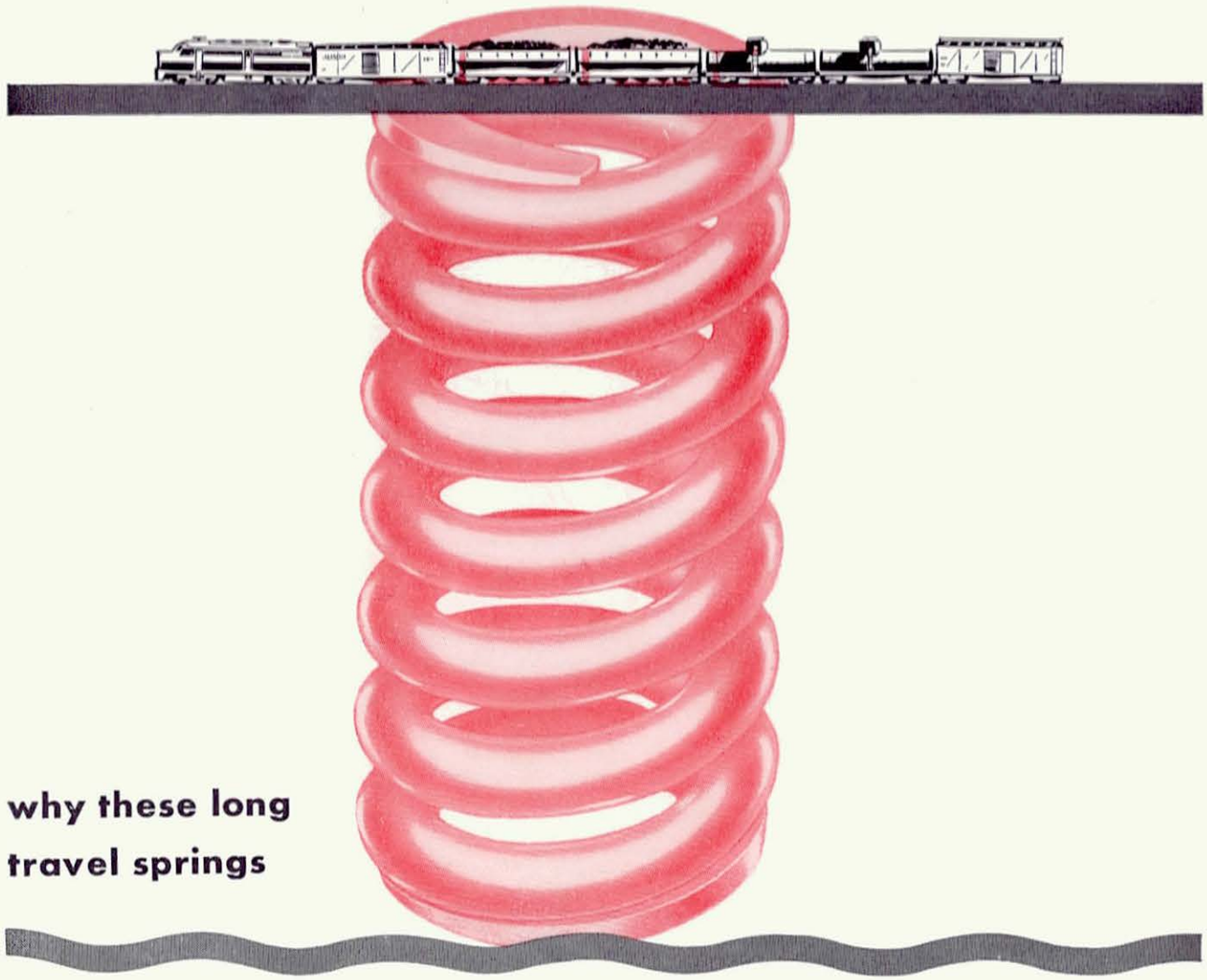

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